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# Massachusetts Department of Public Health

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**Health Survey Program**  
**Center for Health Information, Statistics, Research, and Evaluation**

## A Profile of Health Among Massachusetts Adults, 2003

Results from the Behavioral Risk Factor Surveillance System

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*Kerry Healey ~ Lieutenant Governor*  
*Ronald Preston ~ Secretary of Health and Human Services*  
*Christine C. Ferguson ~ Commissioner of Public Health*  
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# ACKNOWLEDGEMENTS

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# Executive Summary

The Behavioral Risk Factor Surveillance System (BRFSS) is a random digit dial telephone survey of Massachusetts residents ages 18 years and older. The BRFSS collects information from a sample of Massachusetts residents on a wide variety of topics such as health risks, preventive health behaviors, health conditions, and emerging health issues. Massachusetts has conducted the BRFSS since 1986. In 2003, 7,580 interviews were conducted among Massachusetts adults. Highlights from the 2003 Massachusetts BRFSS are presented below.

## OVERALL HEALTH MEASURES

### Overall Health Status

Approximately 12% of Massachusetts adults reported their health was either fair or poor. Hispanic adults (23%) were more likely than Black, non-Hispanic (13%), White, non-Hispanic (12%) or Asian (5%) adults to report fair or poor health. The percentage of respondents reporting fair or poor health decreased with both increasing income and education. Approximately 10% of Massachusetts adults reported that they had 15 or more days of poor mental health in the past 30 days. Hispanic adults (17%) were more likely than Black, non-Hispanic (13%), White, non-Hispanic (9%) or Asian (7%) adults to report 15 or more days of poor mental health in the past month.

### Quality of Life

Nearly 8% of Massachusetts adults reported 15 or more days of feeling sad, blue or depressed in the past 30 days. Women (9%) were more likely than men (7%) to report feeling sad, blue, or depressed for 15 or more days in the past month. Feelings of being sad, blue, or depressed decreased with increasing income and education. Approximately 9% of adults reported 15 or more days of poor physical health in the past month. Reports of poor physical health also decreased with increasing education and income and increased with increasing age.

## HEALTH CARE ACCESS AND UTILIZATION

### Insurance Status

Approximately 8% of Massachusetts adults ages 18-64 years reported being uninsured at the time of the survey. Men (11%) were more likely than women (6%) to report being uninsured. Younger adults (ages 18-24 years) were the most likely to be uninsured (18%). Hispanic (23%) and Black, non-Hispanic (17%) adults were more likely than Asian (8%) or White, non-Hispanic (6%) adults to report being uninsured. The trend in the percentage of adults reporting no health insurance coverage decreased from 12% in 1996 to 8% in 2003.

### Health Care Access

Overall, 87% of Massachusetts adults reported that they had a personal health care provider, 92% of women and 81% of men. Approximately 7% of Massachusetts adults reported that they had not seen a doctor at some point in the past year because of cost. Not seeing a doctor due to cost decreased with increasing income.

## **RISK FACTORS AND PREVENTIVE BEHAVIORS**

### **Tobacco Use**

Among Massachusetts adults, 19% were current smokers, and 2% were heavy smokers (smoking more than 20 cigarettes per day). Young adults (ages 18-24 years) were the most likely to be current smokers (28%). Current smoking rates were similar among White, non-Hispanic (19%), Hispanic (19%), and Black, non-Hispanic (18%) adults, while the current smoking rate among Asian (13%) adults was lower.

### **Smoking Cessation**

Approximately 56% of Massachusetts smokers had stopped smoking for one day or longer in the past 12 months because they were trying to quit. Younger smokers were most likely to make a quit attempt. Black, non-Hispanic (74%), Asian (72%), and Hispanic (71%) adults were all more likely to have attempted to quit smoking than White, non-Hispanic (53%) adults. The percentage of Massachusetts smokers who had stopped smoking for one day or longer in the past 30 days has remained relatively stable since 1996. Thirty percent of Massachusetts smokers were planning to quit in the next 30 days.

### **Environmental Tobacco Smoke**

Among Massachusetts adults, 71% reported living in a household where smoking is not allowed anywhere. Young adults (ages 18-24 years) were the least likely to report living in a household where smoking was not allowed. Asian adults (83%) were more likely than Hispanic (77%), Black, non-Hispanic (73%) or White, non-Hispanic (71%) adults to live in a household where smoking was prohibited. Approximately 60% of Massachusetts adults supported a ban on smoking in restaurants, with more women (64%) than men (56%) supporting a ban. Hispanic (73%) and Black, non-Hispanic (69%) adults were more likely to support a ban than White, non-Hispanic or Asian (59%) adults.

### **Alcohol Use**

Approximately 18% of Massachusetts adults reported binge drinking (see Section 3.4 for definition) at some point in the past month, with men (28%) more likely than women (10%) to report binge drinking. Binge drinking decreased with increasing age. Adults with less than a high school education (13%) were less likely than adults with a high school education (19%), 1-3 years of college (21%) or 4 or more years of college (17%) to report binge drinking. Eight percent of Massachusetts adults reported heavy drinking (see Section 3.4 for definition). White, non-Hispanic adults (8%) were more likely than Hispanic (6%), Black, non-Hispanic (5%) or Asian (3%) adults to report heavy drinking.

### **Overweight and Obesity**

Fifty-three percent of Massachusetts adults reported a height and weight consistent with being overweight. Men (63%) were more likely than women (43%) to be overweight. Overweight increased until age 64 years, then decreased. Black, non-Hispanic adults (62%) were more likely to be overweight than Hispanic (58%), White, non-Hispanic (53%) or Asian (35%) adults. Approximately 17% of Massachusetts adults reported a height and weight consistent with being obese. Obesity decreased with both increasing education and income.

## **Physical Activity**

Approximately 78% of Massachusetts adults reported some form of leisure time physical activity over the past month. Leisure time physical activity increased with both increasing education and income. White, non-Hispanic (81%) adults were more likely to report any leisure time physical activity than Black, non-Hispanic (71%), Asian (71%), or Hispanic (58%) adults. Nearly 53% of Massachusetts adults reported regular physical activity. White, non-Hispanic (55%) adults were more likely to report regular physical activity than Asian (46%), Black, non-Hispanic (44%) or Hispanic (39%) adults.

## **Fruit and Vegetable Consumption**

Twenty-nine percent of Massachusetts adults reported consuming five or more servings of fruits or vegetables per day. Women (35%) were more likely than men (23%) to report consuming five or more fruits and vegetables per day. Fruit and vegetable consumption increased with increasing education. White, non-Hispanic (30%) adults were more likely to report consuming five or more fruits and vegetables per day than Black, non-Hispanic (27%), Asian (25%) or Hispanic (24%) adults.

## **Cholesterol Awareness**

Approximately 82% of Massachusetts adults reported having their cholesterol checked in the past five years. Women (84%) were more likely than men (80%) to report having their cholesterol checked. Reports of having cholesterol checked increased with increasing education and income. Of adults who had their cholesterol checked, 32% reported that they had been told that they had high cholesterol. High cholesterol increased with increasing age. White, non-Hispanic (34%) adults were more likely to report high cholesterol than Asian (24%), Hispanic (23%) or Black, non-Hispanic (21%) adults. High cholesterol decreased with increasing education.

## **Hypertension Awareness**

Approximately 23% of Massachusetts adults reported that they had been told by a health care professional that they had high blood pressure. High blood pressure increased with increasing age and decreased with increasing education and income. Black, non-Hispanic (28%) adults were more likely to report high blood pressure than White, non-Hispanic (24%), Hispanic (18%) or Asian (1%) adults. Of respondents who reported high blood pressure, 78% reported taking medication for their high blood pressure. Taking medication for high blood pressure increased with increasing age.

## **Flu Shot and Pneumonia Vaccine**

Among adults ages 50-64 years, 38% reported having a flu shot in the past year, as opposed to 72% of adults ages 65-74 years and 77% of adults ages 75 years and older. Among adults ages 65 and older, 69% reported ever having a pneumonia vaccination. Reports of pneumonia vaccination decreased with increasing income.

## **Sunburn**

Overall, 36% of Massachusetts adults reported having a sunburn within the past 12 months. Men (41%) were more likely than women (31%) to report having a sunburn in the past 12 months. Reports of sunburn decreased with increasing age, and increased with increasing education, and income. Adults living in the Boston region (29%) were less likely than adults from all other regions to report a sunburn in the past 12 months.

## **CHRONIC HEALTH CONDITIONS**

### **Diabetes**

Approximately 6% of Massachusetts adults reported that they had ever been told by a doctor that they had diabetes. Diabetes increased with age until age 74 years, and then decreased. Hispanic (9%) adults were more likely than White, non-Hispanic (6%), Black, non-Hispanic (7%) or Asian (3%) adults to report having been told by a doctor that they had diabetes. Diabetes decreased with increasing education.

### **Cardiovascular Diseases**

Of Massachusetts adults ages 35 and older, 8% reported that they had been told by a doctor, nurse, or other health professional that they had had a heart attack or were told that they had angina or coronary heart disease. Men (9%) were more likely to report heart disease than women (7%). Heart disease increased with increasing age and decreased with increasing education. Approximately 3% of adults ages 35 and older, reported that they had been told by a doctor, nurse or other health professional that they had had a stroke.

### **Asthma**

Overall, 14% of Massachusetts adults reported that they had ever been told that they had asthma. Ten percent of adults reported that they currently had asthma. Women (12%) were more likely than men (8%) to report that they currently had asthma.

### **Arthritis**

Among adults ages 45 and older, 41% reported that they had been told by a doctor or other health professional that they had arthritis. Arthritis increased with increasing age and decreased with increasing education.

### **Disability**

Approximately 22% of Massachusetts adults reported having a disability (see Section 4.5 for definition), with similar percentages of men and women reporting a disability. Reports of a disability decreased with increasing education and income. Six percent of Massachusetts adults reported that they had a disability that caused them to need help with selected activities. Women (7%) were more likely than men (4%) to report that they required help as a result of their disability. The need for help as a result of disability increased with increasing age and decreased with increasing education and income.

## **CANCER SCREENING**

### **Colorectal Cancer Screening**

Among adults ages 50 and older, 36% reported having ever had a blood stool test using a home kit to determine if their stool contained blood, with similar percentages of men and women reporting the test. Hispanic adults (19%) were less likely than White, non-Hispanic (37%) and Black, non-Hispanic (36%) adults to report having had the test. Among adults ages 50 and older, 54% reported having had a sigmoidoscopy or colonoscopy in the past five years. Men (61%) were more likely than women (48%) to report having had either a sigmoidoscopy or colonoscopy. Hispanic (33%) and Asian (14%) adults were less likely than Black, non-Hispanic (58%) or White, non-Hispanic (55%) adults to have had a sigmoidoscopy or colonoscopy.



## **Breast Cancer Screening**

Among women ages 40 years and older, 85% reported having had a mammogram in the past two years. Black, non-Hispanic (90%) women were more likely than Asian (87%) White, non-Hispanic (85%) or Hispanic (84%) women to have had a mammogram in the past two years. Having had a mammogram in the past two years increased with both increasing income and education.

## **CHILDHOOD HEALTH**

### **Dental Sealant**

Fifty-nine percent of children had dental sealants on her or his permanent teeth. Reports of dental sealants increased with increasing household income. Respondents in the Boston region were the most likely to report that a child in their household did not have dental sealant.

### **Health Care Access**

Two percent of children did not have any kind of health coverage including HMOs, Medicaid, MassHealth, or Children's Medical Security. Not having health care coverage increased with increasing age. Not having health care coverage was highest among children living in households with a household income of \$25,000 or less.

### **Asthma**

Thirteen percent of children were reported to have ever been diagnosed with asthma. Approximately 9% of children currently had asthma. Reports of asthma increased with increasing age of the child. Asthma rates among children were lowest among children living in a household with an income of greater than \$50,000 (8%) and highest among children living in a home with a household income of less than \$25,000 (18%).

## **OTHER TOPICS**

### **HIV Testing**

Among adults ages 18-64 years, approximately 47% reported having ever been tested for HIV. Testing for HIV increased until age 34 years and then decreased. Black, non-Hispanic and Hispanic (58%) adults were more likely than White, non-Hispanic (45%) and Asian (42%) adults to have ever been tested for HIV. Approximately 13% of adults ages 18-64 reported that they had been tested for HIV in the past year. Testing in the past year decreased with increasing age and increasing income. Hispanic adults (27%) were more likely than Black, non-Hispanic (19%), Asian (16%) or White, non-Hispanic (11%) adults to report having been tested for HIV in the past year.

### **Illicit Drug Use**

Among Massachusetts adults, nearly half of adults (49%) reported having ever used an illicit drug, with women (46%) less likely than men (52%) to report illicit drug use. White, non-Hispanic (51%) adults were more likely than Black, non-Hispanic (42%), Asian (24%) or Hispanic (23%) adults to report ever having used an illicit drug. Approximately 6% of Massachusetts adults reported having used an illicit drug in the past 30 days, with more men (9%) than women (3%) reporting use of an illicit drug in the past 30 days.

**Unwanted Sexual Contact**

Approximately 22% of women ages 18-59 years reported having ever had unwanted sexual contact. Black, non-Hispanic (25%) women were more likely to report having ever had unwanted sexual contact than White, non-Hispanic (23%), Hispanic (17%), or Asian (2%) women. Of men ages 18-59 years, 7% report having ever had unwanted sexual contact. Black, non-Hispanic (15%) men were more likely than White, non-Hispanic (8%), Hispanic (2%) or Asian (2%) men to report having ever had unwanted sexual contact.

**Falls**

Among adults ages 45 and older, 14% report having fallen in the past three months. White, non-Hispanic (15%) adults were more likely than Hispanic (11%), Black, non-Hispanic (10%) or Asian (3%) adults to report having fallen. Of adults who reported having fallen, 5% reported an injury as a result of the fall.

# INTRODUCTION

## WHAT IS THE BRFSS?

The Behavioral Risk Factor Surveillance System (BRFSS) is a continuous, random-digit-dial, telephone survey of adults ages 18 and older and is conducted in all states as a collaboration between the Centers for Disease Control and Prevention (CDC) and state departments of health. The survey has been in the field in Massachusetts since 1986. The BRFSS collects data on a variety of health characteristics, risk factors, preventive behaviors, chronic illnesses, and emerging health issues. The information obtained in this survey assists in identifying the need for health interventions, monitoring the effectiveness of existing interventions and prevention programs, developing health policy and legislation, and measuring progress toward attaining state and national health objectives.

*BRFSS collects data on a variety of health characteristics, risk factors for chronic conditions, preventive behaviors, and emerging health issues.*

Each year, the BRFSS includes a core set of questions developed by the CDC. In 2003, these questions pertained to health status, health care access and utilization, exercise, fruit and vegetable consumption, asthma, diabetes, immunizations, tobacco use, alcohol consumption, HIV/AIDS, and others. In addition to the core CDC questions, the Massachusetts BRFSS added a number of topics including environmental tobacco exposure, disability and quality of life, breast and colorectal cancer screening, alcohol and drug awareness and treatment, bioterrorism, children's health, and many more topics.

## ABOUT THIS REPORT

This report summarizes selected results from the 2003 Massachusetts BRFSS. First, we provide a description of survey questions and analyses used for key variables. In addition, overall percentage estimates of these variables are presented, along with key findings of interest. Where possible, we provide figures comparing 2003 results to previous years' data for variables that have been measured over several years. This practice allows us to assess trends in specific characteristics over time.

We also provide a table detailing the overall estimates and estimates by demographic characteristics (gender, age, race-ethnicity, education, household income, and Massachusetts regions). Crude percentages and age-adjusted percentages and their 95% confidence intervals are also presented in this same table. The crude percentage is the weighted proportion of respondents in a particular category. Age adjustment is done in order to eliminate differences that may in fact be due to different age distributions in the population when comparing different geographies (i.e., a community rate compared with the statewide rate) or across time (i.e., Massachusetts in 1990 compared to Massachusetts in 2003). Readers may wish to use the crude percentage to make general statements about the magnitude of an event, and use the age-adjusted percentage when comparing different rates. Please note that the crude percentage for a specific age group is also known as the "age-specific" percentage. (Please refer to the Technical Notes section for more detail on age-adjustment). Crude percentages are used for the numbers presented throughout the text.

Race-ethnicity categories in this report include White, Black, Hispanic, and Asian. When referring to White, Black, or Asian, these categories include only non-Hispanic respondents. All respondents reporting Hispanic ethnicity are included in the Hispanic category.

Statistical significance testing was not conducted to establish significant differences between groups. References to increases or decreases in percentages refer to variations in data and not to the statistical significance of these variations. The reader might note that non-overlapping confidence intervals indicate statistical significance, but overlapping confidence intervals do not necessarily indicate that differences are not statistically significant.

BRFSS data are weighted to reflect both the probability that an individual was selected to participate in the survey and the differential participation by sex, age, and race-ethnicity. There may be slight differences in estimates or rankings between this report and previous publications due to different weighting methods.

In the Appendix, whenever possible, we provide a comparison of Massachusetts results to national data and Healthy People 2010 Objectives.\* For national comparisons, we provide the median percentage and the range of estimates for all fifty states, the District of Columbia, and Puerto Rico using the weighted crude weight. We also provide a ranking of Massachusetts relative to other states, although this ranking does not take into account the degree of uncertainty of the estimates within each state due to random sampling variation. Rankings are based on the lowest risk or healthiest behavior, so that a rank of 1<sup>st</sup> = best and 52<sup>nd</sup> = worst.

*This report provides estimates for 2003 data, compares our state with U.S. data and Healthy People 2010 Objectives, and highlights comparisons of interest.*

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\* See Technical Notes, page 84

## DEMOGRAPHIC PROFILE OF MASSACHUSETTS BRFSS SURVEY RESPONDENTS

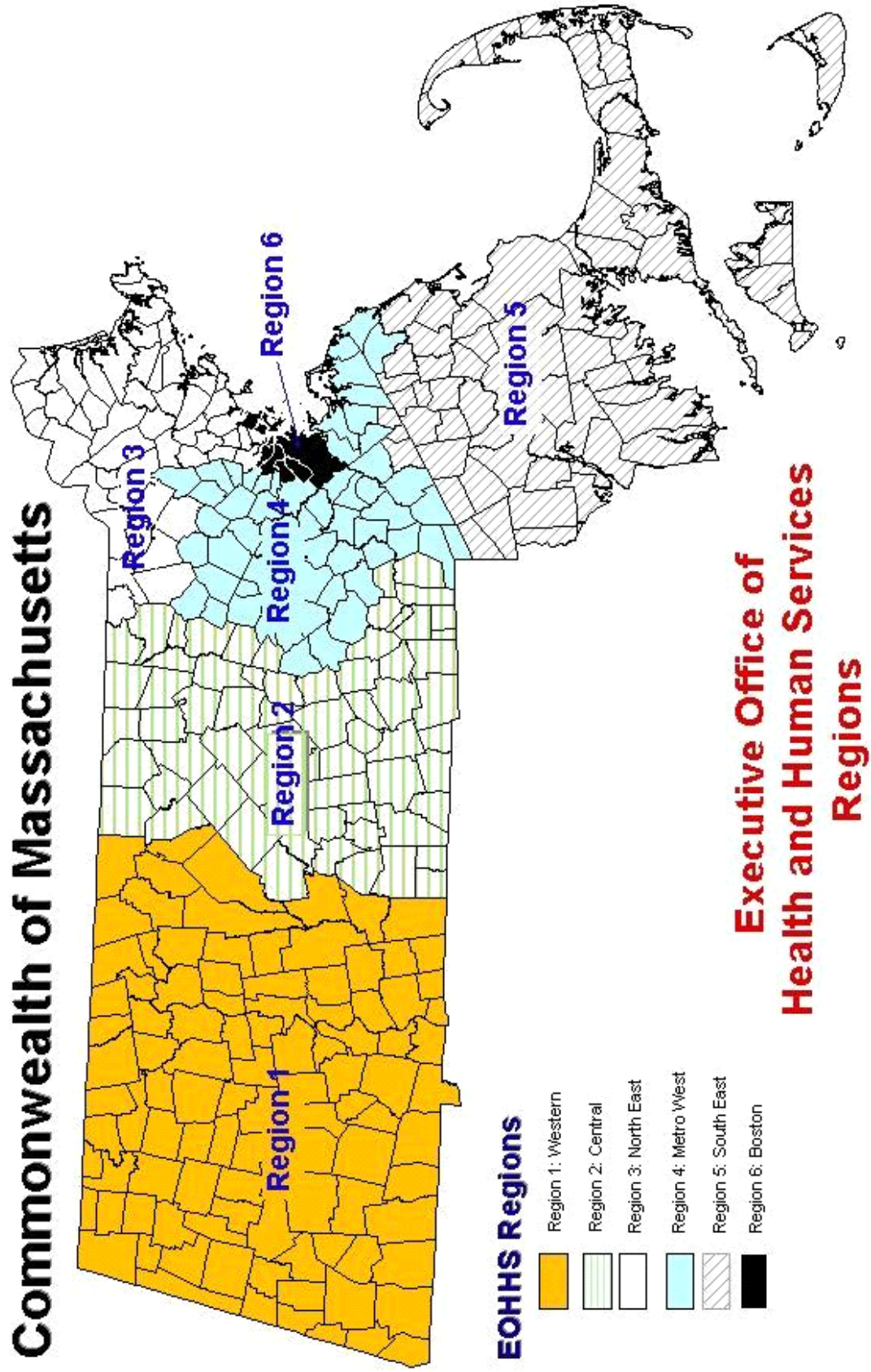
DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS IN THE MASSACHUSETTS BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2003		
	UNWEIGHTED SAMPLE SIZE* N	WEIGHTED PERCENT (%)**
OVERALL	7,580	100.0
GENDER		
MALE	3,025	47.3
FEMALE	4,555	52.7
AGE GROUP		
18–24	497	12.3
25–34	1,419	17.4
35–44	1,638	21.2
45–54	1,460	18.0
55–64	1,053	12.9
65–74	718	8.5
75 AND OLDER	657	9.7
RACE-ETHNICITY***		
WHITE	6,206	85.2
BLACK	407	4.0
HISPANIC	634	7.3
ASIAN	157	2.6
OTHER	93	0.9
EDUCATION		
< HIGH SCHOOL	688	8.3
HIGH SCHOOL	1,933	26.0
COLLEGE 1–3 YRS	1,809	24.1
COLLEGE 4+ YRS	3,129	41.6
HOUSEHOLD INCOME		
<\$25,000	1,663	21.6
\$25–34,999	763	10.3
\$35–49,999	1,036	14.9
\$50–74,999	1,163	19.0
\$75,000+	1,908	34.2
REGION		
I–WESTERN	1,183	14.4
II–CENTRAL	1,149	13.2
III–NORTH EAST	1,406	18.2
IV–METRO WEST	1,214	22.6
V–SOUTH EAST	1,545	20.5
VI–BOSTON	1,083	11.1

\* Numbers may not total due to missing data.

\*\* See BRFSS Methodology in Appendix.

\*\*\* White, Black and Asian race categories refer to non-Hispanic..

# Commonwealth of Massachusetts



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## SECTION 1: OVERALL HEALTH MEASURES

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## Section 1.1: Overall Health Status

Respondents were asked to describe their health as excellent, very good, good, fair, or poor. Presented here is the percentage of adults who reported that their health was fair or poor.

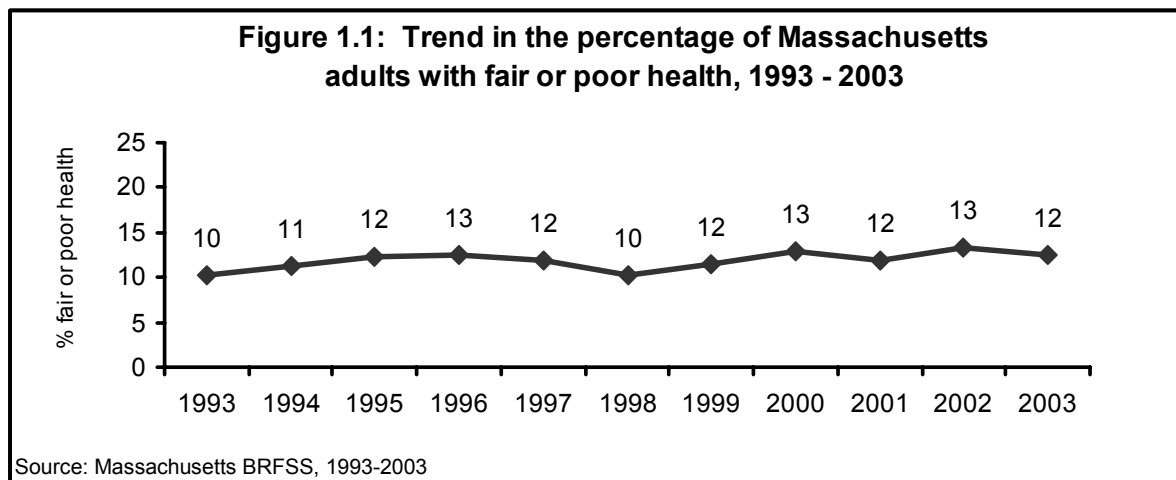
Respondents were asked for how many days during the past month they would describe their mental health as not good. Poor mental health includes stress, depression, and problems with emotion. Presented here is the percentage of adults who reported 15 or more days of poor mental health.

### FAIR OR POOR HEALTH (Table 1.1)

- Overall, 12% of Massachusetts adults reported their health as being fair or poor.
- The percentage of adults who reported fair or poor health increased with increasing age, with the highest percentage of adults reporting fair or poor health being highest among adults ages 75 and older (28%).
- Hispanic adults (23%) were more likely than White, non-Hispanic (12%), Black, non-Hispanic (13%) or Asian (5%) adults to report fair or poor health.
- The percentage of adults reporting fair or poor health decreased with both increasing education and income. With adults with four or more years of college education being almost six times less likely to report fair or poor health as those with less than a high school education.
- Adults in the Metro West region of the state (10%) were the least likely to report fair or poor health when compared with other regions of the state.
- Over the past ten years, the trend in the percentage of Massachusetts's adults who report fair or poor health has remained relatively stable (Figure 1.1).

### 15+ POOR MENTAL HEALTH DAYS IN PAST MONTH (Table 1.1)

- Overall, 10% of Massachusetts adults reported that they had 15 or more poor mental health days in the past 30 days.
- Adults ages 18-24 (14%) were the most likely to report poor mental health, while adults ages 75 years and older (6%) were the least likely to report poor mental health.
- Hispanic adults (17%) were more likely than White, non-Hispanic (9%), Black, non-Hispanic (13%), or Asian (7%) adults to report poor mental health.
- Reports of poor mental health decreased with increasing education with those with less than a high school education (17%) being almost three times more likely than those with four or more years of college (6%) to report poor mental health.





**TABLE 1.1 – OVERALL HEALTH STATUS AMONG MASSACHUSETTS ADULTS, 2003**

	FAIR OR POOR HEALTH			15+ POOR MENTAL HEALTH DAYS		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	12.4	12.2 (11.3-13.1)		9.6	9.8 ( 8.9-10.7)	
GENDER						
MALE	11.3	11.6 (10.2-13.0)		8.9	9.0 ( 7.7-10.3)	
FEMALE	13.4	12.7 (11.5-14.0)		10.3	10.6 ( 9.4-11.9)	
AGE GROUP						
18–24	7.3	( 4.4-10.2)*		13.5	( 9.6-17.4)*	
25–34	6.1	( 4.3 - 7.8)*		9.6	( 7.6-11.6)*	
35–44	7.7	( 6.0 - 9.3)*		11.8	( 9.8-13.8)*	
45–54	10.5	( 8.6-12.4)*		10.2	( 8.3-12.1)*	
55–64	16.9	(14.2-19.6)*		6.4	( 4.7 - 8.0)*	
65–74	24.8	(20.8-28.7)*		8.2	( 5.7-10.7)*	
75 AND OLDER	28.2	(24.0-32.3)*		5.5	( 3.5 - 7.6)*	
RACE-ETHNICITY**						
WHITE	11.7	11.0 (10.0-11.9)		8.9	9.1 ( 8.2-10.1)	
BLACK	12.8	15.7 (11.2-20.3)		13.4	12.8 ( 8.7-17.0)	
HISPANIC	23.3	30.7 (25.7-35.8)		16.8	16.1 (12.0-20.2)	
ASIAN	5.2	5.9 ( 1.9-17.0)		7.2	4.8 ( 1.3 - 8.3)	
EDUCATION						
< HIGH SCHOOL	34.9	35.6 (30.8-40.5)		16.9	19.1 (14.8-23.5)	
HIGH SCHOOL	16.6	15.6 (13.6-17.5)		13.2	13.7 (11.6-15.7)	
COLLEGE 1–3 YRS	11.5	11.6 ( 9.7-13.4)		10.1	10.3 ( 8.5-12.1)	
COLLEGE 4+ YRS	5.9	6.4 ( 5.1 - 7.6)		5.8	5.9 ( 4.6 - 7.2)	
HOUSEHOLD INCOME						
<\$25,000	29.3	30.0 (27.0-33.0)		17.7	20.5 (17.7-23.4)	
\$25–34,999	14.0	13.9 (10.4-17.4)		10.8	11.8 ( 8.3-15.2)	
\$35–49,999	10.1	10.3 ( 7.8-12.7)		12.0	12.1 ( 9.4-14.9)	
\$50–74,999	6.7	6.9 ( 5.0 - 8.8)		7.6	7.4 ( 5.5 - 9.2)	
\$75,000+	4.3	5.2 ( 3.4 - 7.0)		5.0	5.0 ( 3.4 - 6.5)	
REGION						
I–WESTERN	12.8	12.4 (10.0-14.7)		11.2	11.2 ( 8.8-13.5)	
II–CENTRAL	15.9	15.7 (12.9-18.4)		10.8	10.8 ( 8.4-13.2)	
III–NORTH EAST	11.5	11.2 ( 9.3-13.1)		8.4	8.6 ( 6.7-10.5)	
IV–METRO WEST	9.6	9.5 ( 7.5-11.6)		8.7	9.0 ( 6.9-11.1)	
V–SOUTH EAST	13.7	12.6 (10.5-14.6)		9.6	10.2 ( 8.1-12.3)	
VI–BOSTON	12.9	14.9 (12.2-17.6)		10.3	11.0 ( 8.5-13.5)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 1.2: Quality of Life

All respondents were asked to report the number of days that they had felt sad, blue, or depressed during the past month. Presented here is the percentage of respondents who reported that they felt sad, blue, or depressed for at least 15 days of the past month.

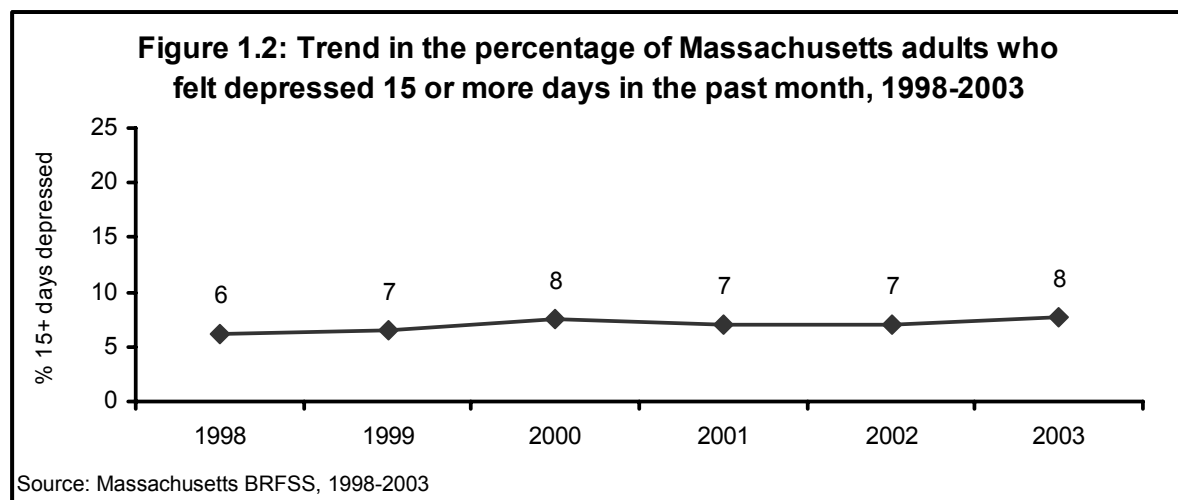
All respondents were also asked to report the number of days during the past month that their physical health, which includes physical illness and injury, had not been good. Presented here is the percentage of respondents who reported that they had experienced at least 15 days of poor physical health in the previous month.

### 15+ DAYS SAD, BLUE, OR DEPRESSED (Table 1.2)

- Overall, nearly 8% of Massachusetts adults felt sad, blue or depressed for 15 or more days during the previous month.
- Women (9%) were more likely than men (7%) to report feeling sad, blue or depressed for 15 or more days in the previous month.
- Hispanic adults (17%) were more likely than White, non-Hispanic (7%), Black, non-Hispanic (11%) or Asian (5%) adults to report feeling sad, blue or depressed for 15 or more days in the previous month.
- Feeling sad, blue or depressed for 15 or more days in the previous month decreased with both increasing education and increasing income.
- Over the past ten years, the percentage of Massachusetts adults who reported that they experienced 15 or more days of feeling sad, blue or depressed in the past month has remained relatively stable (Figure 1.2).

### 15+ DAYS IN POOR PHYSICAL HEALTH (Table 1.2)

- Overall, 9% of Massachusetts adults reported being in poor physical health for 15 or more days in the previous month.
- Women (10%) were more likely than men (8%) to report being in poor physical health for 15 or more days in the previous month.
- Asian adults (2%) were much less likely than White, non-Hispanic (9%), Black, non-Hispanic (7%) or Hispanic (9%) adults to report 15 or more days of poor physical health in the past month.
- Poor physical health decreased with both increasing education and increasing income.



**TABLE 1.2 – QUALITY OF LIFE AMONG MASSACHUSETTS ADULTS, 2003**

	15+ DAYS SAD, BLUE, OR DEPRESSED			15+ DAYS IN POOR PHYSICAL HEALTH		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	7.7	7.7 ( 6.8 - 8.7)		8.9	8.8 ( 8.0 - 9.6)	
GENDER						
MALE	6.5	6.5 ( 5.2 - 7.8)		8.0	8.3 ( 7.2 - 9.5)	
FEMALE	8.7	8.8 ( 7.4-10.3)		9.7	9.4 ( 8.3-10.5)	
AGE GROUP						
18–24	10.5	( 6.0-15.0)*		4.2	( 1.7 - 6.7)*	
25–34	6.4	( 4.5 - 8.3)*		4.3	( 3.1 - 5.6)*	
35–44	7.8	( 5.9 - 9.8)*		7.2	( 5.7 - 8.8)*	
45–54	7.9	( 5.9 - 9.9)*		8.5	( 6.7-10.3)*	
55–64	7.5	( 5.3 - 9.7)*		12.0	( 9.8-14.3)*	
65–74	5.8	( 3.4 - 8.1)*		15.4	(12.2-18.6)*	
75 AND OLDER	7.9	( 4.8-11.1)*		18.4	(14.7-22.1)*	
RACE-ETHNICITY**						
WHITE	6.8	6.8 ( 5.8 - 7.8)		9.1	8.7 ( 7.9 - 9.6)	
BLACK	10.8	11.6 ( 6.4-16.7)		7.1	8.4 ( 5.1-11.7)	
HISPANIC	16.8	15.6 (11.2-20.0)		8.5	10.7 ( 7.5-13.9)	
ASIAN	4.7	3.5 ( 1.1-10.5)		2.3	1.7 ( 0.6 - 4.6)	
EDUCATION						
< HIGH SCHOOL	15.8	17.3 (12.6-22.0)		18.0	18.9 (15.0-22.8)	
HIGH SCHOOL	9.2	9.3 ( 7.1-11.4)		11.2	10.7 ( 9.1-12.3)	
COLLEGE 1–3 YRS	7.8	7.9 ( 6.0 - 9.7)		8.9	9.0 ( 7.4-10.7)	
COLLEGE 4+ YRS	5.1	5.6 ( 3.9 - 7.4)		5.6	6.0 ( 4.8 - 7.2)	
HOUSEHOLD INCOME						
<\$25,000	15.3	17.8 (14.6-21.0)		18.9	20.5 (17.9-23.2)	
\$25–34,999	7.7	8.9 ( 5.4-12.4)		7.4	7.5 ( 5.2 - 9.7)	
\$35–49,999	7.0	6.9 ( 4.4 - 9.5)		8.9	8.9 ( 6.7-11.2)	
\$50–74,999	6.9	6.8 ( 4.5 - 9.1)		7.3	7.5 ( 5.6 - 9.4)	
\$75,000+	3.3	3.6 ( 1.8 - 5.4)		3.8	4.9 ( 3.1 - 6.7)	
REGION						
I–WESTERN	8.4	8.3 ( 5.9-10.6)		9.5	9.2 ( 7.2-11.1)	
II–CENTRAL	9.2	9.1 ( 6.5-11.7)		12.2	12.2 ( 9.5-14.8)	
III–NORTH EAST	6.8	6.9 ( 4.8 - 8.9)		8.2	8.0 ( 6.3 - 9.7)	
IV–METRO WEST	6.7	6.8 ( 4.4 - 9.2)		6.0	6.1 ( 4.6 - 7.7)	
V–SOUTH EAST	6.3	6.3 ( 4.4 - 8.2)		10.3	9.7 ( 7.8-11.6)	
VI–BOSTON	10.5	10.9 ( 7.7-14.1)		8.5	10.2 ( 8.0-12.5)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic



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## SECTION 2: HEALTH CARE ACCESS AND UTILIZATION

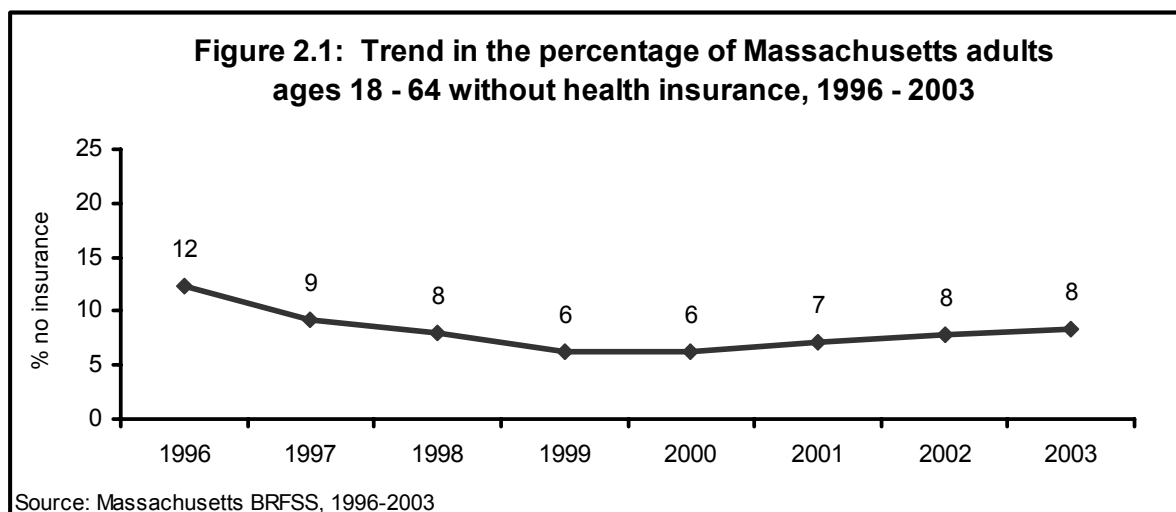
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## Section 2.1: Insurance Status

All respondents were asked if they had any type of health care coverage at the time of the interview. Those who indicated that they had no coverage were asked a follow-up question to be certain that they had considered all types of health care coverage.\* This included health care coverage from their employer or someone else's employer, a plan that they had bought on their own, Medicare, MassHealth, and coverage through the military, or the Indian Health Service. Given that adults over the age of 65 are eligible for Medicare, this analysis is restricted to adults ages 18-64. Presented here is the percentage of Massachusetts adults reporting no health care coverage.

### NO HEALTH INSURANCE, AGES 18-64 (Table 2.1)

- Approximately 8% of Massachusetts adults reported that they were uninsured.
- Men (11%) were more likely than women (6%) to report being uninsured.
- Being uninsured decreased with increasing age, with 18% of adults ages 18-24 years reporting being uninsured as opposed to 5% of adults ages 55-64 years.
- Hispanic (23%) and Black, non-Hispanic (17%) adults were more likely to report being uninsured than Asian (8%) or White, non-Hispanic (6%) adults.
- Being uninsured decreased with both increasing education and increasing income.
- Adults in the Metro West region (5%) were the least likely to report being uninsured, while adults in the South East and Boston regions (11%) were the most likely to report being uninsured.
- From 1996-2000 the trend in the percentage of adults ages 18-64 with no health insurance decreased from 12% to 6%, then began to rise (Figure 2.1).



\*Please note that CDC estimates of uninsured adults, based solely upon the CDC core health insurance question may differ from estimates derived from the Massachusetts BRFSS. The Massachusetts BRFSS includes a follow-up question to ensure that respondents consider all possible types of health insurance coverage; the addition of this follow-up question leads to differences between CDC and Massachusetts BRFSS estimates.

**TABLE 2.1 – NO HEALTH INSURANCE AMONG MASSACHUSETTS ADULTS, AGES 18-64, 2003**

	CRUDE %	AGE-ADJUSTED % 95% CI
OVERALL	8.4	8.5 ( 7.5- 9.6)
GENDER		
MALE	11.0	11.2 ( 9.5-12.9)
FEMALE	5.9	6.0 ( 4.9 - 7.0)
AGE GROUP		
18–24	17.8	(13.4-22.1)*
25–34	12.0	( 9.5-14.5)*
35–44	5.4	( 4.1 - 6.7)*
45–54	4.8	( 3.5 - 6.1)*
55–64	4.7	( 3.1 - 6.4)*
RACE-ETHNICITY**		
WHITE	6.4	6.8 ( 5.8 - 7.8)
BLACK	17.3	15.6 ( 9.6-21.7)
HISPANIC	22.6	21.0 (16.2-25.8)
ASIAN	8.1	11.5 ( 2.6-20.3)
EDUCATION		
< HIGH SCHOOL	19.5	18.4 (13.7-23.0)
HIGH SCHOOL	14.6	14.2 (11.7-16.7)
COLLEGE 1–3 YRS	7.9	8.1 ( 6.2 - 9.9)
COLLEGE 4+ YRS	3.5	3.9 ( 2.7 - 5.1)
HOUSEHOLD INCOME		
<\$25,000	23.1	22.4 (18.9-25.9)
\$25–34,999	17.9	17.5 (12.9-22.2)
\$35–49,999	7.0	7.1 ( 4.5 - 9.6)
\$50–74,999	4.7	5.3 ( 3.2 - 7.4)
\$75,000+	1.0	1.3 ( 0.6 - 2.1)
REGION		
I–WESTERN	8.5	8.5 ( 6.1-10.9)
II–CENTRAL	7.8	8.3 ( 5.6-11.1)
III–NORTH EAST	9.0	9.3 ( 6.9-11.7)
IV–METRO WEST	4.9	5.1 ( 2.9 - 7.2)
V–SOUTH EAST	10.9	11.7 ( 9.1-14.4)
VI–BOSTON	10.6	9.8 ( 7.3-12.2)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 2.2: Health Care Access

All respondents were asked if they had a person that they thought of as their personal doctor or health care provider. Presented here is the percentage of respondents who reported that they did have a personal health care provider.

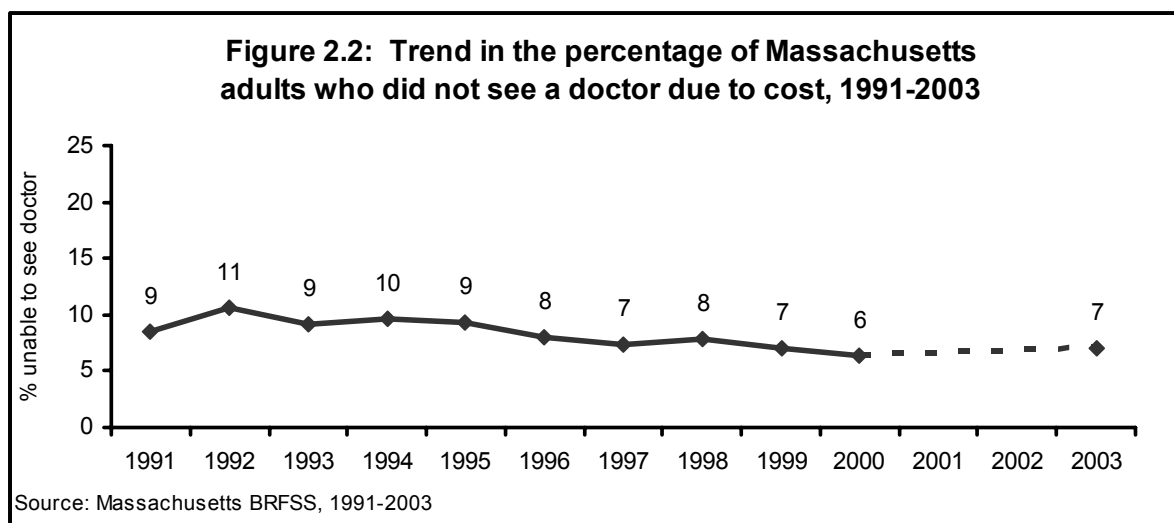
All respondents were also asked whether they were unable to see a doctor in the past year due to cost. Presented here is the percentage of respondents who reported that cost had prevented them from seeing a doctor at some point in the past year.

### HAVE PERSONAL HEALTH CARE PROVIDER (Table 2.2)

- Eighty-seven percent of Massachusetts adults reported that they had a personal doctor or health care provider.
- Women (92%) were more likely than men (81%) to report having a personal doctor or health care provider.
- Having a personal health care provider increased with increasing age, with 71% of adults ages 18-24 years reporting a personal health care provider and 96% of adults ages 75 years and older reporting a personal health care provider.
- Hispanic (67%) and Asian (73%) adults were less likely than White, non-Hispanic (89%) and Black, non-Hispanic (83%) adults to report having a personal health care provider.
- Having a personal health care provider increased with both increasing education and income.

### COULD NOT SEE DOCTOR DUE TO COST (Table 2.2)

- Seven percent of Massachusetts adults reported that they had not seen a doctor at some point in the past year due to cost.
- Women (7%) were slightly less likely to report not being able to see a doctor due to cost than men (8%).
- Hispanic adults (16%) were more likely than Black, non-Hispanic (12%), White, non-Hispanic (6%) or Asian (4%) adults to report not seeing a doctor over the past year due to cost.
- The percentage of adults reporting that they were unable to see a doctor due to cost decreased with both increasing education and income.



Note: Dotted line signifies year in which question was not asked.



**TABLE 2.2 – HEALTH CARE ACCESS AMONG MASSACHUSETTS ADULTS, 2003**

	HAVE PERSONAL HEALTH CARE PROVIDER			COULD NOT SEE DOCTOR DUE TO COST		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	87.0	86.6 (85.6-87.7)		7.1	7.3 ( 6.5 - 8.1)	
GENDER						
MALE	81.3	81.4 (79.6-83.1)		7.7	7.7 ( 6.5 - 9.0)	
FEMALE	92.0	91.7 (90.6-92.8)		6.6	6.9 ( 6.0 - 7.9)	
AGE GROUP						
18–24	71.3	(66.4-76.3)*		10.9	( 7.5-14.2)*	
25–34	75.7	(72.5-78.9)*		12.2	( 9.9-14.4)*	
35–44	88.8	(86.9-90.7)*		7.0	( 5.5 - 8.4)*	
45–54	91.7	(89.9-93.4)*		5.8	( 4.4 - 7.2)*	
55–64	94.0	(92.1-95.8)*		4.2	( 2.8 - 5.6)*	
65–74	97.0	(95.7-98.3)*		3.1	( 1.7 - 4.5)*	
75 AND OLDER	96.0	(94.2-97.8)*		4.2	( 2.2 - 6.3)*	
RACE-ETHNICITY**						
WHITE	89.4	88.5 (87.3-89.6)		6.2	6.6 ( 5.8 - 7.5)	
BLACK	83.3	86.6 (82.7-90.6)		11.5	11.0 ( 7.0-15.1)	
HISPANIC	66.7	72.7 (67.9-77.5)		15.8	14.5 (10.8-18.2)	
ASIAN	73.3	79.8 (71.8-87.8)		3.7	2.7 ( 0.3 - 5.1)	
EDUCATION						
< HIGH SCHOOL	79.0	76.3 (71.7-80.9)		14.9	16.2 (12.2-20.3)	
HIGH SCHOOL	83.0	82.1 (79.8-84.5)		7.7	8.2 ( 6.6 - 9.8)	
COLLEGE 1–3 YRS	88.3	88.8 (87.0-90.7)		8.5	8.7 ( 7.1-10.4)	
COLLEGE 4+ YRS	90.3	90.3 (88.9-91.8)		4.4	4.6 ( 3.6 - 5.5)	
HOUSEHOLD INCOME						
<\$25,000	78.0	76.8 (73.8-79.8)		15.7	18.3 (15.5-21.0)	
\$25–34,999	81.6	80.9 (77.1-84.8)		10.5	10.8 ( 7.6-14.0)	
\$35–49,999	87.3	87.2 (84.4-90.0)		6.8	6.9 ( 4.8 - 9.1)	
\$50–74,999	91.3	91.3 (89.1-93.4)		4.8	4.7 ( 3.2 - 6.2)	
\$75,000+	92.9	93.3 (92.0-94.6)		2.2	2.5 ( 1.4 - 3.6)	
REGION						
I–WESTERN	87.9	87.1 (84.4-89.8)		7.8	8.3 ( 6.2-10.4)	
II–CENTRAL	91.0	90.5 (88.0-93.0)		7.4	7.3 ( 5.4 - 9.3)	
III–NORTH EAST	88.6	87.9 (85.7-90.2)		7.2	7.4 ( 5.7 - 9.2)	
IV–METRO WEST	87.8	87.4 (84.8-90.0)		5.4	5.6 ( 3.8 - 7.5)	
V–SOUTH EAST	86.7	85.5 (83.0-88.1)		7.1	7.8 ( 5.9 - 9.6)	
VI–BOSTON	77.1	80.8 (78.0-83.6)		9.4	9.0 ( 6.8-11.1)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.



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## SECTION 3: RISK FACTORS AND PREVENTIVE BEHAVIORS

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## Section 3.1: Tobacco Use

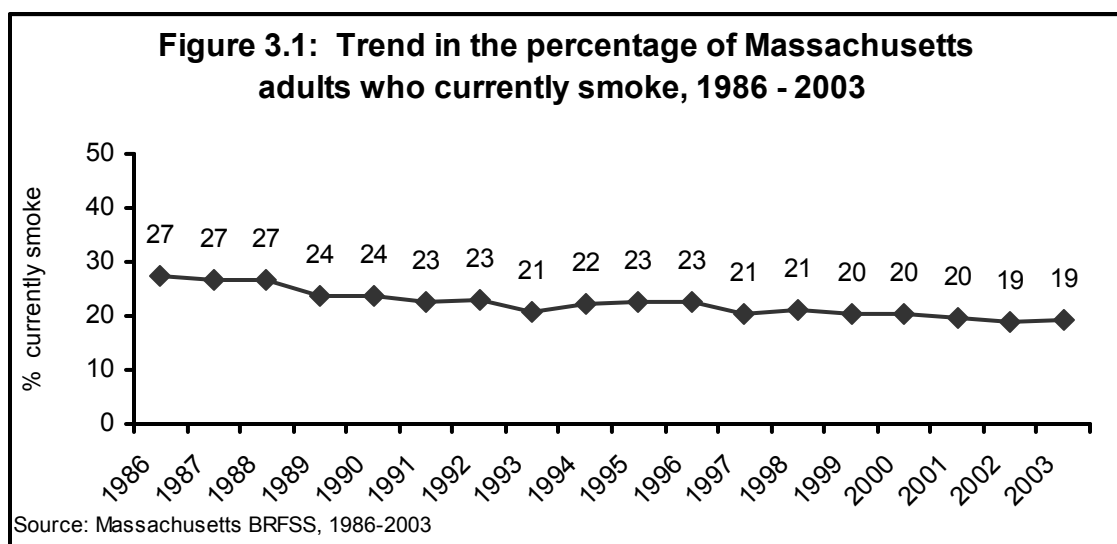
A current smoker was defined as someone who smoked at least 100 cigarettes in their lifetime and currently smoked either some days or everyday. A current smoker who reported smoking 21 or more cigarettes per day was defined as a heavy smoker. Presented here is the percentage of adults who are current smokers, and the percentage of adults who are heavy smokers.

### CURRENT SMOKER (Table 3.1)

- Overall, 19% of Massachusetts adults reported being current smokers.
- Men (20%) were more likely than women (18%) to report that they were current smokers.
- Current smoking decreased with age with 28% of adults ages 18-24 years reporting current smoking as opposed to 6% of adults ages 75 years and older.
- White, non-Hispanic and Hispanic adults (19%) were more likely to report being current smokers than Black, non-Hispanic (18%) or Asian adults (13%).
- The percentage of adults reporting current smoking decreased with both increasing education and income.
- The percentage of adults reporting current smoking was lowest in the Metro West region (15%).
- The trend in the percentage of adults who report being current smokers has decreased since 1990 (Figure 3.1).

### HEAVY SMOKER (Table 3.1)

- Two percent of Massachusetts adults reported they were heavy smokers.
- Men (3%) were more likely than women (2%) to report heavy smoking.
- Hispanic adults (3%) were more likely to report heavy smoking than White, non-Hispanic (2%) or Black, non-Hispanic (1%) adults.
- Reports of heavy smoking were highest among respondents reporting an income of less than \$34,999, with 5% of adults with a household income of \$25,000 to \$34,999 and 4% of adults with a household income of less than \$25,000 reporting heavy smoking.



**TABLE 3.1 – TOBACCO USE AMONG MASSACHUSETTS ADULTS, 2003**

	CURRENT SMOKER			HEAVY SMOKER		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	19.1	19.4	(18.2-20.5)	2.0	2.0	( 1.3 - 2.8)
GENDER						
MALE	20.0	19.8	(18.0-21.7)	2.5	2.5	( 1.2 - 3.7)
FEMALE	18.3	18.9	(17.5-20.4)	1.6	1.5	( 1.0 - 2.1)
AGE GROUP						
18–24	28.1		(23.1-33.2)*	2.9		( 0.0 - 6.8)*
25–34	23.4		(20.5-26.3)*	0.5		( 0.1 - 1.0)*
35–44	21.5		(19.1-23.9)*	2.0		( 0.6 - 3.5)*
45–54	18.6		(16.2-21.1)*	2.8		( 1.3 - 4.3)*
55–64	16.0		(13.3-18.7)*	2.6		( 1.1 - 4.2)*
65–74	12.4		( 9.6-15.2)*	2.4		( 0.9 - 4.0)*
75 AND OLDER	5.9		( 3.9 - 8.0)*	1.4		( 0.0 - 3.0)*
RACE-ETHNICITY**						
WHITE	19.2	20.0	(18.7-21.4)	2.1	2.1	( 1.3 - 2.9)
BLACK	17.7	16.6	(12.1-21.2)	1.0	1.2	( 0.3 - 4.8)
HISPANIC	19.0	18.6	(14.2-23.0)	3.0	4.4	( 0.5 - 8.3)
ASIAN	12.6	8.7	( 3.9-13.5)	†	†	--
EDUCATION						
< HIGH SCHOOL	27.4	30.8	(25.8-35.8)	6.0	7.8	( 1.8-13.7)
HIGH SCHOOL	26.7	28.7	(26.0-31.3)	3.4	3.4	( 1.6 - 5.2)
COLLEGE 1–3 YRS	21.9	22.0	(19.6-24.3)	1.4	1.4	( 0.6 - 2.1)
COLLEGE 4+ YRS	11.1	11.8	(10.0-13.6)	0.8	0.8	( 0.3 - 1.3)
HOUSEHOLD INCOME						
<\$25,000	26.3	30.6	(27.5-33.7)	3.6	3.7	( 2.0 - 5.4)
\$25–34,999	23.6	24.9	(20.4-29.4)	5.2	5.3	( 0.2-10.5)
\$35–49,999	24.8	25.0	(21.6-28.4)	1.4	1.4	( 0.5 - 2.3)
\$50–74,999	18.5	18.1	(15.3-20.9)	1.4	1.2	( 0.3 - 2.1)
\$75,000+	12.2	12.1	( 9.8-14.3)	1.0	0.8	( 0.2 - 1.3)
REGION						
I–WESTERN	22.0	22.7	(19.4-25.9)	1.4	1.3	( 0.3 - 2.3)
II–CENTRAL	20.9	21.2	(17.9-24.4)	4.0	4.1	( 1.4 - 6.8)
III–NORTH EAST	18.2	18.7	(16.1-21.3)	0.7	0.7	( 0.2 - 1.3)
IV–METRO WEST	14.7	15.1	(12.5-17.7)	2.3	2.5	( 0.2 - 4.9)
V–SOUTH EAST	21.2	22.1	(19.4-24.9)	2.3	2.3	( 1.2 - 3.4)
VI–BOSTON	19.6	18.5	(15.8-21.3)	1.3	1.5	( 0.4 - 2.6)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

## Section 3.2: Smoking Cessation

Respondents who were current smokers were asked if they had stopped smoking for one day or longer in the past 12 months because they were trying to quit smoking. Presented here are the percentage of current smokers who reported that they had attempted to quit smoking for one day or longer in the past 12 months.

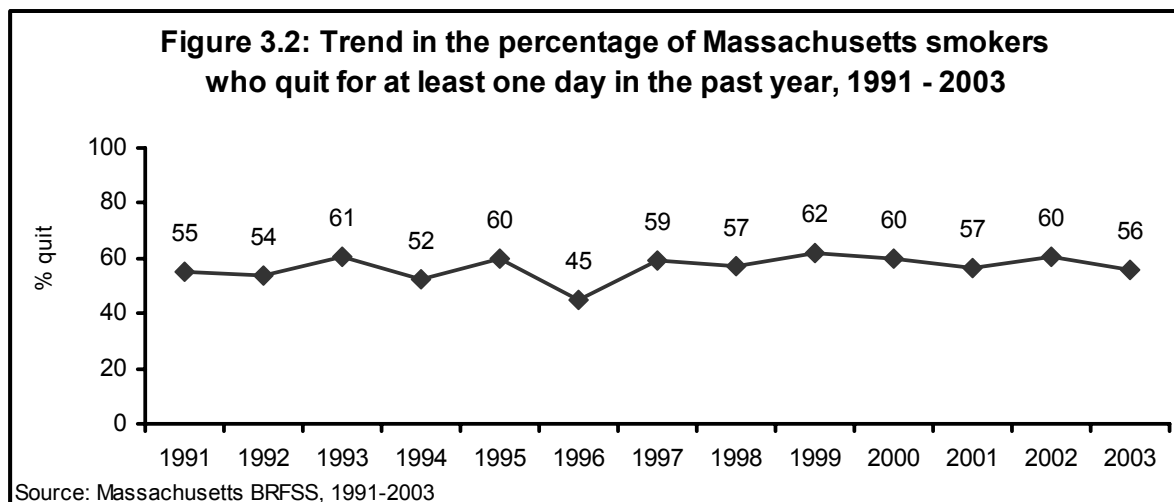
Respondents who were current smokers were also asked if they had any intention of trying to quit smoking within the next 30 days. Presented here is the percentage of adults who reported that they did have plans to quit smoking within the next 30 days.

### QUIT ATTEMPT AMONG CURRENT SMOKERS (Table 3.2)

- Approximately 56% of current smokers reported having made at least one quit attempt in the past year.
- Women (59%) were more likely than men (52%) to report having made a quit attempt in the past year.
- Quit attempts decreased with increasing age with adults ages 18-24 years almost twice as likely as adults ages 75 years and older to report having made a quit attempt.
- The percentage of adults who have made at least one quit attempt in the past year has remained relatively stable since 1997 (Figure 3.2).

### PLANNING TO QUIT AMONG CURRENT SMOKERS (Table 3.2)

- Approximately 30% of Massachusetts smokers reported that they planned to quit smoking within the next 30 days.
- Women (32%) were more likely than men (28%) to report that they planned to quit smoking in the next 30 days.
- Adults ages 55-64 years (43%) were the group most likely to report a plan to quit within the next 30 days, whereas adults ages 18-24 years (24%) were the least likely to report a plan to quit smoking in the next 30 days.
- Black, non-Hispanic and Hispanic adults (40%) were more likely than White, non-Hispanic (29%) or Asian (26%) adults to report a plan to quit within the next 30 days.
- Planning to quit decreased with increasing education, with adults with less than a high school education (38%) much more likely to report a plan to quit than those with 4 or more years of college (24%).



**TABLE 3.2 – SMOKING CESSATION AMONG MASSACHUSETTS ADULT SMOKERS, 2003**

	QUIT ATTEMPT			PLANNING TO QUIT		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	55.7	54.5	(51.2-57.8)	30.1	30.5	(26.0-34.9)
GENDER						
MALE	52.4	50.8	(45.6-56.0)	28.1	28.3	(21.4-35.1)
FEMALE	59.0	58.1	(53.9-62.3)	31.9	32.5	(26.8-38.2)
AGE GROUP						
18–24	61.3		(50.9-71.8)*	24.2		(11.8-36.6)*
25–34	59.6		(52.6-66.7)*	28.9		(20.1-37.7)*
35–44	58.9		(52.8-65.0)*	32.8		(24.0-41.6)*
45–54	51.7		(44.5-58.9)*	25.4		(16.4-34.4)*
55–64	52.5		(43.3-61.7)*	42.9		(28.4-57.4)*
65–74	45.1		(33.2-57.0)*	32.2		(14.9-49.6)*
75 AND OLDER	37.7		(20.4-55.0)*	28.9		(7.0-50.8)*
RACE-ETHNICITY**						
WHITE	53.1	52.3	(48.7-55.8)	28.6	29.0	(24.2-33.8)
BLACK	74.0	63.7	(55.1-72.2)	39.5	29.0	(13.7-44.3)
HISPANIC	70.8	69.0	(55.2-82.8)	39.8	41.1	(23.1-59.1)
ASIAN	72.0	73.2	(54.5-91.9)	26.4	39.9	(15.8-64.0)
EDUCATION						
< HIGH SCHOOL	57.2	55.5	(46.5-64.6)	37.9	36.2	(22.6-49.9)
HIGH SCHOOL	52.1	52.9	(47.3-58.5)	31.8	34.8	(27.1-42.4)
COLLEGE 1–3 YRS	62.0	59.2	(53.4-64.9)	29.4	27.0	(20.2-33.7)
COLLEGE 4+ YRS	53.3	50.9	(44.1-57.7)	24.1	25.0	(15.9-34.2)
HOUSEHOLD INCOME						
<\$25,000	57.1	57.3	(51.5-63.0)	30.5	30.3	(22.7-37.9)
\$25–34,999	50.7	50.5	(39.9-61.0)	22.6	24.9	(14.0-35.8)
\$35–49,999	55.9	53.4	(45.0-61.8)	28.6	24.2	(15.8-32.6)
\$50–74,999	54.8	47.3	(39.5-55.2)	26.9	25.1	(14.8-35.3)
\$75,000+	56.7	56.3	(46.2-66.5)	41.4	41.1	(27.3-54.9)
REGION						
I–WESTERN	52.7	51.0	(42.9-59.2)	29.4	28.9	(19.1-38.8)
II–CENTRAL	60.5	57.4	(49.0-65.9)	30.1	26.9	(17.0-36.9)
III–NORTH EAST	53.2	52.0	(44.3-59.6)	32.9	33.7	(21.9-45.5)
IV–METRO WEST	52.9	52.3	(43.8-60.8)	30.3	32.6	(22.0-43.2)
V–SOUTH EAST	54.6	56.2	(49.2-63.2)	26.5	27.6	(18.7-36.6)
VI–BOSTON	64.4	59.0	(50.8-67.2)	34.5	33.9	(24.1-43.7)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

### Section 3.3: Environmental Tobacco Smoke

Respondents were asked about rules regarding smoking in their household. Answer selections were: no smoking is allowed, smoking is allowed in some places or at sometimes, or smoking is permitted anywhere in the household. Presented here is the percentage of respondents reporting that no smoking was allowed in their household.

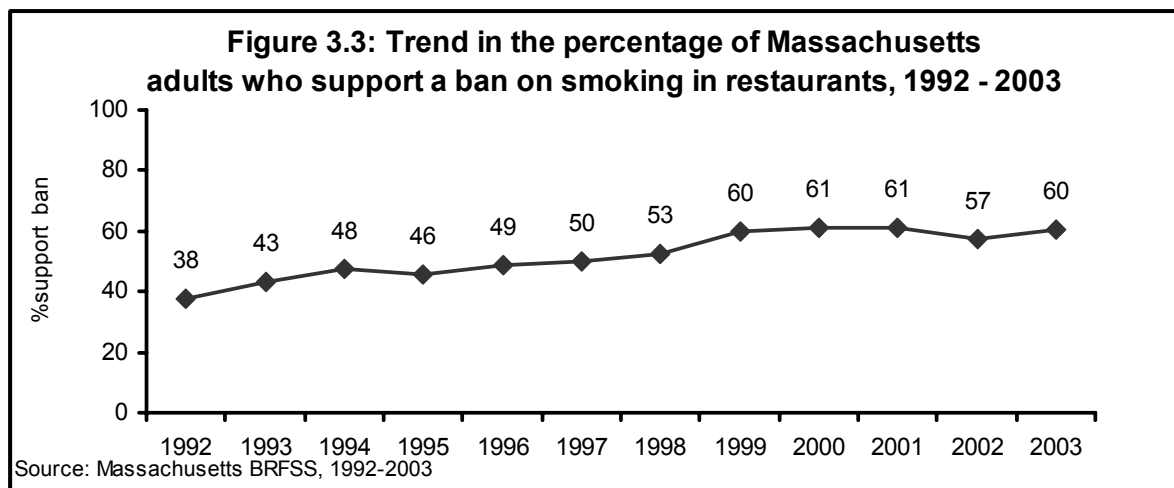
Respondents were also asked about their views on smoking in public places. Respondents were asked if they thought smoking should be allowed in certain areas, permitted without restriction, or not allowed at all. Presented here is percentage of respondents who felt that smoking should not be allowed in restaurants.

#### LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED (Table 3.3)

- Approximately 71% of Massachusetts adults live in a household where smoking is not allowed.
- Living in a household where smoking is not allowed was fairly consistent by age group, with the exception that adults ages 18-24 years were least likely to report living in a household where smoking was not allowed.
- Asian (83%) and Hispanic (77%) adults were more likely to report living in a household where smoking was not allowed than White, non-Hispanic (71%) or Black, non-Hispanic (73%) adults.
- Adults with four or more years college (80%) were more likely than those with less education to report living in a household where smoking was not allowed.

#### SUPPORT FOR BAN ON SMOKING IN RESTAURANTS (Table 3.3)

- Sixty percent of Massachusetts adults supported a ban on smoking in restaurants.
- Women (64%) were more likely than men (56%) to support a ban on smoking in restaurants.
- Hispanic adults (73%) were more likely than White, non-Hispanic (59%), Black, non-Hispanic (69%) or Asian (59%) adults to support a ban on smoking in restaurants.
- The percentage of adults reporting that they support a ban on smoking in bars and restaurants has increased since 1992 (Figure 3.3).





**TABLE 3.3 – ENVIRONMENTAL TOBACCO SMOKE AMONG MASSACHUSETTS ADULTS, 2003**

	LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED			SUPPORT A BAN ON SMOKING IN BARS AND RESTAURANTS		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	71.3	71.2	(69.2-73.3)	60.2	60.1	(57.9-62.2)
GENDER						
MALE	69.9	70.2	(67.1-73.2)	56.0	56.0	(52.6-59.3)
FEMALE	72.7	72.8	(70.3-75.3)	64.1	64.0	(61.2-66.7)
AGE GROUP						
18–24	62.7		(54.7-70.7)*	55.4		(47.0-63.7)*
25–34	74.4		(69.9-79.0)*	61.3		(56.3-66.3)*
35–44	72.8		(68.8-76.8)*	57.0		(52.5-61.5)*
45–54	70.7		(66.4-75.0)*	63.5		(59.0-68.0)*
55–64	70.9		(65.6-76.2)*	63.4		(57.8-68.9)*
65–74	71.7		(65.9-77.6)*	58.6		(51.6-65.5)*
75 AND OLDER	74.4		(68.4-80.4)*	61.9		(55.2-68.6)*
RACE-ETHNICITY**						
WHITE	70.6	70.3	(68.1-72.6)	58.9	58.6	(56.2-60.9)
BLACK	72.5	72.2	(63.6-80.8)	68.7	66.9	(58.3-75.4)
HISPANIC	77.2	75.5	(67.6-83.3)	73.4	75.8	(68.1-83.4)
ASIAN	83.4	88.2	(80.2-96.3)	58.5	69.0	(57.4-80.7)
EDUCATION						
< HIGH SCHOOL	66.8	62.1	(55.1-69.1)	59.6	58.6	(50.6-66.6)
HIGH SCHOOL	61.1	60.7	(56.4-64.9)	55.3	54.3	(50.0-58.6)
COLLEGE 1–3 YRS	70.1	70.0	(66.0-74.0)	60.8	60.9	(56.7-65.2)
COLLEGE 4+ YRS	79.4	78.9	(75.8-81.9)	62.9	62.9	(59.3-66.4)
HOUSEHOLD INCOME						
<\$25,000	63.2	63.6	(58.9-68.4)	56.4	56.3	(51.3-61.3)
\$25–34,999	67.2	66.1	(58.8-73.3)	60.6	60.2	(52.7-67.7)
\$35–49,999	61.1	60.6	(55.0-66.2)	54.1	52.8	(46.7-58.9)
\$50–74,999	75.0	75.5	(70.9-80.2)	59.2	58.7	(53.4-64.0)
\$75,000+	80.1	79.7	(75.7-83.7)	63.7	64.8	(60.2-69.3)
REGION						
I–WESTERN	69.8	70.1	(65.0-75.2)	62.3	63.0	(57.8-68.1)
II–CENTRAL	68.3	67.7	(62.3-73.2)	56.4	56.7	(50.8-62.6)
III–NORTH EAST	70.2	70.4	(65.7-75.1)	58.2	57.8	(52.7-62.9)
IV–METRO WEST	76.3	76.3	(72.0-80.7)	63.2	63.2	(58.3-68.1)
V–SOUTH EAST	69.6	68.9	(64.1-73.7)	55.7	55.7	(50.6-60.7)
VI–BOSTON	72.2	72.1	(67.2-77.0)	67.2	66.7	(61.5-72.0)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 3.4: Alcohol Use

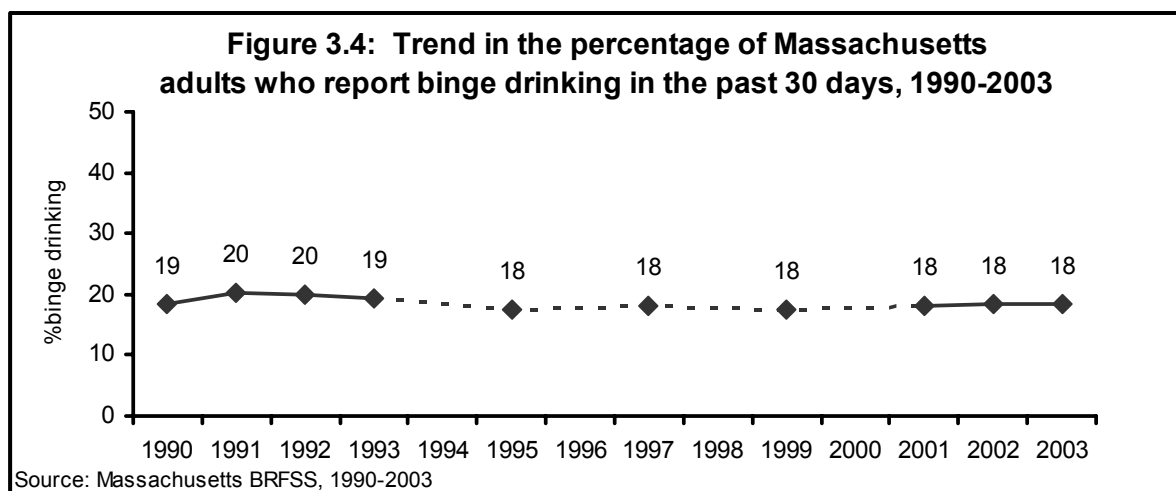
All respondents were asked about their consumption of alcohol in the past month. A drink of alcohol was defined as one can or bottle of beer, one glass of wine, one can or bottle of wine cooler, one cocktail, or one shot of liquor. Binge drinking was defined as consumption of 5 or more drinks on any one occasion in the past month. Heavy drinking was defined as consumption of more than 60 drinks in the past month for men and consumption of more than 30 drinks in the past month for women. Presented here is the percentage of adults who reported binge drinking and heavy drinking.

### BINGE DRINKING (Table 3.4)

- Approximately 18% of Massachusetts adults reported binge drinking in the past month.
- Men (28%) were more likely than women (10%) to report binge drinking.
- Binge drinking decreased as age increased.
- White, non-Hispanic adults (19%) were more likely than Hispanic (16%), Asian (15%) or Black, non-Hispanic (12%) adults to report binge drinking.
- Binge drinking was highest among those with a household income of \$50,000 to \$75,000 (23%) and lowest among those with a household income of less than \$25,000 (15%).
- The percentage of adults who reported binge drinking in the past 30 days has remained at 18% since 1995 (Figure 3.4).

### HEAVY DRINKING (Table 3.4)

- Nearly 8% of Massachusetts adults reported heavy drinking.
- Men (9%) were more likely than women (7%) to report heavy drinking.
- White, non-Hispanic adults (8%) were more likely than Hispanic (6%), Black, non-Hispanic (5%) or Asian (3%) adults to report heavy drinking.
- Heavy drinking was highest among adults ages 18-24 years (17%), while adults ages 25-34 years (9%) were the next group most likely to report heavy drinking.
- Respondents with less than a high school education (6%) were less likely to report heavy drinking than those with a higher education.



Note: Dotted line signifies year in which question was not asked.

**TABLE 3.4 – ALCOHOL USE AMONG MASSACHUSETTS ADULTS, 2003**

	BINGE DRINKING			HEAVY DRINKING***		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	18.3	18.9 (17.8-20.1)		7.6	7.7 ( 6.9 - 8.6)	
GENDER						
MALE	27.8	27.7 (25.8-29.7)		8.5	8.5 ( 7.2 - 9.9)	
FEMALE	9.8	10.6 ( 9.4-11.9)		6.7	6.9 ( 5.9 - 7.9)	
AGE GROUP						
18–24	40.4	(34.9-46.0)*		17.0	(12.8-21.2)*	
25–34	28.6	(25.5-31.8)*		8.5	( 6.5-10.6)*	
35–44	19.7	(17.3-22.1)*		6.4	( 4.9 - 7.9)*	
45–54	14.7	(12.4-17.1)*		6.9	( 5.2 - 8.5)*	
55–64	8.4	( 6.4-10.5)*		5.6	( 3.9 - 7.3)*	
65–74	5.9	( 3.7 - 8.0)*		4.9	( 3.0 - 6.8)*	
75 AND OLDER	1.1	( 0.2 - 2.0)*		3.3	( 1.7 - 5.0)*	
RACE-ETHNICITY**						
WHITE	18.9	20.7 (19.3-22.0)		8.0	8.4 ( 7.4 - 9.4)	
BLACK	11.5	10.8 ( 6.9-14.7)		4.9	5.0 ( 1.9 - 8.1)	
HISPANIC	16.4	13.7 (10.2-17.3)		5.8	4.7 ( 2.4 - 7.0)	
ASIAN	15.1	13.3 ( 5.8-20.8)		3.1	2.1 ( 0.6 - 7.2)	
EDUCATION						
< HIGH SCHOOL	13.0	14.8 (10.8-18.7)		5.6	6.7 ( 3.8 - 9.7)	
HIGH SCHOOL	19.1	21.0 (18.6-23.5)		8.2	8.9 ( 6.9-10.8)	
COLLEGE 1–3 YRS	21.2	20.7 (18.3-23.1)		8.8	8.5 ( 6.7-10.2)	
COLLEGE 4+ YRS	17.2	19.0 (17.0-21.0)		6.8	7.5 ( 6.0 - 9.0)	
HOUSEHOLD INCOME						
<\$25,000	15.4	15.9 (13.3-18.5)		8.2	7.9 ( 6.0 - 9.7)	
\$25–34,999	15.7	16.1 (12.6-19.6)		6.4	6.6 ( 4.2 - 9.1)	
\$35–49,999	20.6	20.6 (17.4-23.8)		9.7	10.2 ( 7.6-12.8)	
\$50–74,999	23.1	23.7 (20.7-26.7)		8.2	8.7 ( 6.5-10.9)	
\$75,000+	20.8	21.3 (18.8-23.9)		7.6	8.2 (6.3-10.1)	
REGION						
I–WESTERN	16.9	17.6 (14.4-20.7)		6.8	7.0 ( 4.8 - 9.3)	
II–CENTRAL	19.4	20.0 (16.7-23.3)		8.7	9.0 ( 6.5-11.6)	
III–NORTH EAST	18.1	18.9 (16.2-21.5)		7.3	7.7 ( 5.8 - 9.6)	
IV–METRO WEST	17.6	18.5 (15.7-21.2)		6.6	6.9 ( 4.9 - 8.8)	
V–SOUTH EAST	17.2	19.4 (16.6-22.3)		7.8	8.0 ( 6.0 - 9.9)	
VI–BOSTON	22.5	18.7 (16.0-21.4)		9.1	8.1 ( 6.1-10.1)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

\*\*\*Heavy drinking is defined as consumption of more than 60 drinks in the past month for men and more than 30 drinks for women. Reports published prior to 2001 have defined heavy drinking as 60 or more drinks for either men or women. As a result, rates presented in this report may not be comparable to rates published prior to 2001.

### Section 3.5: Overweight and Obesity

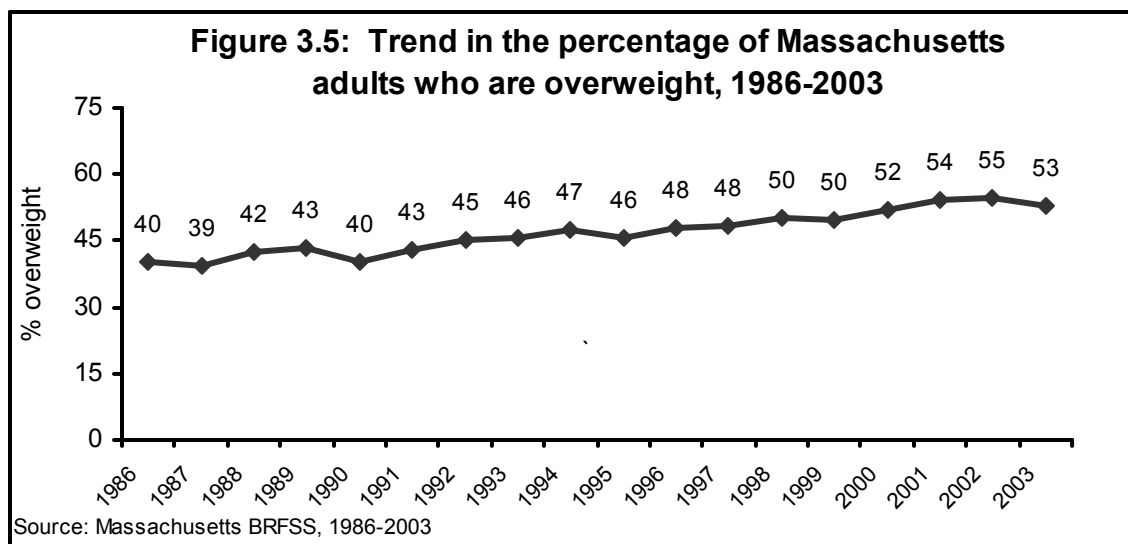
All respondents were asked to report their height and weight. Using the Body Mass Index (BMI), which equals weight in kilograms divided by height in meters squared, all respondents were categorized based on their BMI. Using the Healthy People 2010 standards (HP2010), all adults with a BMI between 25.0-29.9 were classified as being overweight and adults with a BMI greater than or equal to 30.0 were classified as being obese. For example, a person who is 5'6" would be considered overweight at 155 pounds and obese at 186 pounds. Please note that the overweight category presented here includes respondents with a BMI larger than 25.0 (respondents classified as overweight or obese). Presented here is the percentage of respondents who were determined to be overweight or obese.

#### OVERWEIGHT (BMI greater than or equal to 25.0) (Table 3.5)

- Fifty three percent of Massachusetts adults were overweight.
- Men (63%) were more likely than women (43%) to be overweight.
- Black, non-Hispanic (62%) adults were more likely than Hispanic (58%), White, non-Hispanic (53%) or Asian (35%) adults to be overweight.
- Adults with four or more years of college education (47%) were less likely to be overweight than adults with less education.
- From 1990-2002, the trend in the percentage of adults who were has overweight increased. In 2003, the trend began to decrease slightly (Figure 3.5).

#### OBESITY (BMI greater than or equal to 30.0) (Table 3.5)

- Seventeen percent of Massachusetts adults were obese.
- Adults ages 18-24 years (9%) and ages 75 years and older (13%) were less likely than adults ages 35-74 to be obese.
- Asian adults (7%) were less likely to be obese than White, non-Hispanic (16%), Black, non-Hispanic (27%) or Hispanic (22%) adults.
- The percentage of adults who were obese decreased with increasing education, with those with less than a high school education (27%) being over twice as likely as those with four or more years of college (12%) to be obese.
- Adults living in the Metro West region (13%) of the state were less likely to be obese than those living in other regions of the state.



**TABLE 3.5 – OVERWEIGHT AND OBESITY AMONG MASSACHUSETTS ADULTS, 2003**

	OVERWEIGHT (BMI ≥ 25.0)			OBESITY (BMI ≥ 30.0)		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	53.0	52.8	(51.3-54.2)	16.8	16.7	(15.6-17.8)
GENDER						
MALE	63.1	63.0	(60.9-65.2)	17.9	17.9	(16.2-19.6)
FEMALE	43.2	42.6	(40.6-44.5)	15.7	15.5	(14.2-16.9)
AGE GROUP						
18–24	34.6		(29.1-40.2)*	8.9		(5.7-12.1)*
25–34	45.4		(42.0-48.8)*	14.2		(11.8-16.6)*
35–44	54.7		(51.6-57.7)*	16.5		(14.2-18.8)*
45–54	58.6		(55.4-61.9)*	19.5		(16.9-22.1)*
55–64	66.0		(62.4-69.6)*	22.7		(19.5-25.9)*
65–74	64.3		(60.1-68.6)*	24.0		(20.0-28.0)*
75 AND OLDER	49.0		(44.2-53.8)*	13.4		(10.1-16.7)*
RACE-ETHNICITY**						
WHITE	52.8	52.0	(50.4-53.6)	16.3	16.0	(14.8-17.2)
BLACK	62.1	63.8	(57.6-69.9)	27.3	28.2	(22.3-34.1)
HISPANIC	57.8	63.3	(57.7-68.9)	22.0	25.2	(19.7-30.6)
ASIAN	34.7	39.4	(25.9-53.0)	6.9	14.4	(3.8-25.0)
EDUCATION						
< HIGH SCHOOL	64.4	66.5	(61.5-71.5)	26.9	27.6	(22.6-32.7)
HIGH SCHOOL	57.6	58.4	(55.5-61.4)	20.5	20.8	(18.3-23.2)
COLLEGE 1–3 YRS	54.7	55.3	(52.3-58.2)	17.6	18.1	(15.9-20.3)
COLLEGE 4+ YRS	47.0	46.1	(43.6-48.6)	12.1	11.8	(10.2-13.4)
HOUSEHOLD INCOME						
<\$25,000	56.0	57.7	(54.2-61.1)	22.3	23.8	(20.8-26.8)
\$25–34,999	55.2	55.6	(50.7-60.5)	18.0	19.1	(15.2-23.0)
\$35–49,999	57.3	56.9	(52.9-60.9)	19.6	19.4	(16.1-22.8)
\$50–74,999	53.2	52.5	(48.7-56.3)	17.1	16.6	(14.0-19.3)
\$75,000+	51.3	49.9	(46.6-53.2)	12.7	11.6	(9.6-13.7)
REGION						
I–WESTERN	52.7	51.9	(48.1-55.8)	16.4	16.2	(13.5-18.8)
II–CENTRAL	59.9	59.6	(55.7-63.6)	20.3	20.6	(17.2-24.0)
III–NORTH EAST	51.8	50.8	(47.5-54.1)	15.3	14.9	(12.6-17.2)
IV–METRO WEST	47.3	47.0	(43.5-50.4)	12.9	12.7	(10.5-14.9)
V–SOUTH EAST	58.0	57.3	(53.9-60.7)	20.5	20.6	(17.8-23.4)
VI–BOSTON	49.0	51.1	(47.3-54.8)	16.5	17.8	(14.9-20.6)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 3.6: Physical Activity

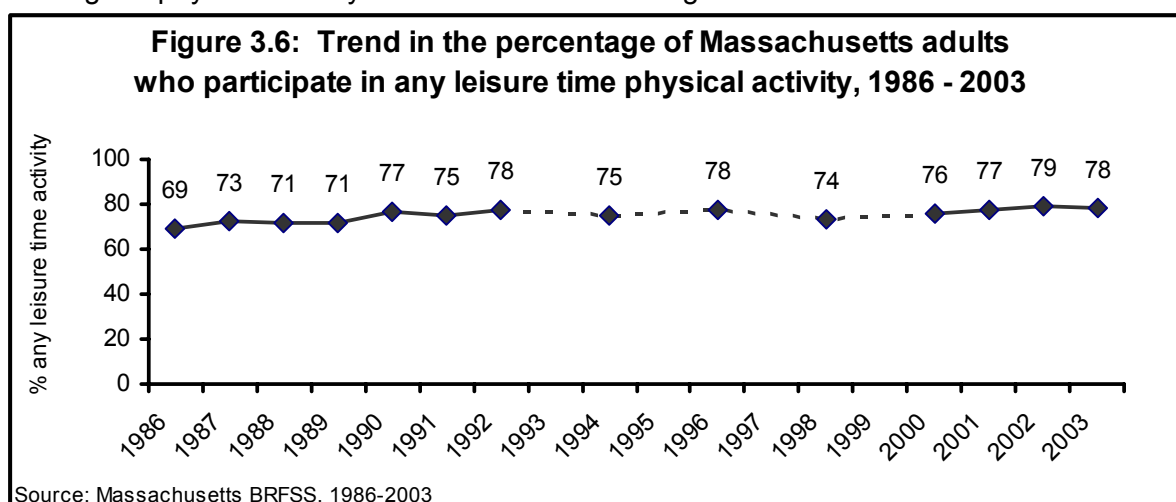
All respondents were asked if they had participated in any physical activity, other than their regular job, in the past month. Respondents were also asked if they had participated in either moderate (activity that causes some increase in breathing and heart rate) or vigorous (activity that causes large increases in breathing or heart rate) physical activities. Adults who participated in 30 minutes of moderate physical activity 5 days per week or 20 minutes of vigorous activity 3 days per week were said to have engaged in regular physical activity. Presented here is the percentage of respondents who reported any leisure time physical activity, or who meet the recommendation for regular physical activity.

### ANY LEISURE TIME PHYSICAL ACTIVITY (Table 3.6)

- Seventy eight percent of Massachusetts adults reported any leisure time physical activity in the past month.
- Men (82%) were more likely to report any leisure time physical activity in the past month than women (75%).
- Hispanic adults (58%) were less likely than White, non-Hispanic adults (81%), Black, non-Hispanic or Asian (71%) adults to have participated in any leisure time physical activity in the past month.
- The percentage of adults who participated in any leisure time physical activity has increased since 1986 (Figure 3.6).

### REGULAR PHYSICAL ACTIVITY IN THE PAST MONTH (Table 3.6)

- Fifty three percent of Massachusetts adults reported regular physical activity in the past month.
- Males (54%) were slightly more likely than females (52%) to report regular physical activity within the past month.
- The percentage of adults who reported regular physical activity decreased with increasing age, with adults ages 18-24 years (65%) being almost twice as likely as adults ages 75 years and older (34%) to report regular physical activity in the past month.
- White, non-Hispanic adults (55%) were more likely to report regular physical activity than Asian (46%), Black, non-Hispanic (44%) or Hispanic (39%) adults.
- Regular physical activity increased with increasing education.



Note: Dotted line signifies year in which question was not asked.

**TABLE 3.6 – PHYSICAL ACTIVITY AMONG MASSACHUSETTS ADULTS, 2003**

	ANY LEISURE TIME PHYSICAL ACTIVITY			REGULAR PHYSICAL ACTIVITY***		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	78.4	78.4	(77.2-79.6)	52.7	52.8	(51.3-54.2)
GENDER						
MALE	81.8	81.4	(79.7-83.2)	53.7	53.5	(51.2-55.8)
FEMALE	75.3	75.9	(74.3-77.5)	51.8	52.4	(50.4-54.3)
AGE GROUP						
18–24	81.9		(77.9-86.0)*	64.5		(59.1-69.9)*
25–34	80.2		(77.4-82.9)*	56.6		(53.3-60.0)*
35–44	80.0		(77.6-82.4)*	53.0		(50.0-56.1)*
45–54	83.5		(81.1-85.8)*	56.9		(53.7-60.2)*
55–64	79.0		(76.1-82.0)*	46.2		(42.4-50.1)*
65–74	73.9		(70.0-77.8)*	45.7		(40.9-50.4)*
75 AND OLDER	59.3		(54.7-63.9)*	34.2		(29.5-38.9)*
RACE-ETHNICITY**						
WHITE	80.8	81.4	(80.2-82.6)	54.5	55.0	(53.4-56.7)
BLACK	71.1	70.0	(64.1-75.9)	44.0	40.3	(33.8-46.8)
HISPANIC	57.7	59.5	(54.2-64.9)	38.6	32.6	(27.1-38.0)
ASIAN	71.2	73.9	(64.0-83.8)	46.1	46.1	(32.3-59.9)
EDUCATION						
< HIGH SCHOOL	54.1	53.6	(48.2-59.1)	38.2	37.5	(32.1-43.0)
HIGH SCHOOL	67.5	68.1	(65.3-70.8)	47.8	48.7	(45.7-51.7)
COLLEGE 1–3 YRS	79.0	78.6	(76.3-80.9)	54.8	54.1	(51.1-57.1)
COLLEGE 4+ YRS	89.6	89.4	(88.1-90.8)	57.2	57.7	(55.3-60.2)
HOUSEHOLD INCOME						
<\$25,000	62.0	62.3	(59.1-65.5)	43.2	42.8	(39.3-46.3)
\$25–34,999	70.1	69.7	(65.3-74.1)	51.0	50.6	(45.7-55.4)
\$35–49,999	76.8	76.8	(73.3-80.3)	48.6	48.4	(44.2-52.6)
\$50–74,999	83.4	83.9	(81.2-86.6)	56.7	57.0	(53.3-60.7)
\$75,000+	91.2	90.3	(88.4-92.3)	61.6	61.6	(58.3-64.9)
REGION						
I–WESTERN	75.2	75.4	(72.2-78.6)	54.0	53.8	(50.0-57.6)
II–CENTRAL	75.8	75.8	(72.5-79.1)	48.7	48.6	(44.5-52.7)
III–NORTH EAST	79.0	79.2	(76.5-81.8)	51.6	51.9	(48.4-55.3)
IV–METRO WEST	82.7	82.5	(80.0-85.0)	55.9	56.1	(52.7-59.5)
V–SOUTH EAST	77.9	78.7	(76.0-81.3)	50.4	51.3	(47.8-54.7)
VI–BOSTON	76.3	75.9	(72.6-79.1)	55.2	52.8	(49.0-56.6)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

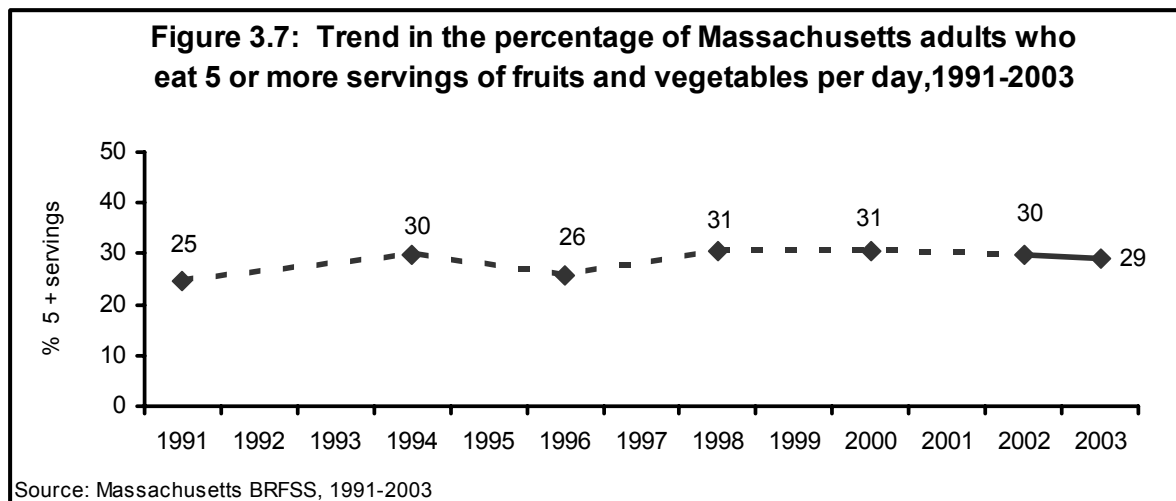
\*\*\*In 2001, physical activity questions were changed. As such, rates are not comparable to years previous to 2001.

## Section 3.7: Fruit and Vegetable Consumption

All respondents were asked about their consumption of fruits and vegetables. This included fruit juice, fruit, green salad, carrots, potatoes, and other vegetables. Presented here is the percentage of respondents who consumed five or more servings of fruits or vegetables per day.

### FIVE OR MORE SERVINGS OF FRUITS AND VEGETABLES PER DAY (Table 3.7)

- Twenty nine percent of Massachusetts adults reported consuming five or more servings of fruits and vegetables per day.
- Women (35%) were more likely than men (23%) to consume five or more servings of fruits and vegetables per day
- Older adults were more likely to consume five or more servings of fruits and vegetables per day than younger adults.
- The percentage of adults who consumed five or more servings of fruits and vegetables per day increased with increasing education, with 22% of those with less than a high school education reporting that they consumed 5 or more servings of fruits and vegetables per day, and 33% of those with 4 or more years of college reporting that they consumed 5 or more serving of fruits and vegetables per day.
- Hispanic (24%) and Asian (25%) adults were less likely to consume five or more servings of fruits and vegetables per day than White, non-Hispanic (30%) or Black, non-Hispanic (27%) adults.
- Fruit and vegetable consumption has fluctuated since 1991 (Figure 3.7).



Note: Dotted line signifies year in which question was not asked.



**TABLE 3.7 – FIVE OR MORE SERVINGS OF FRUIT AND VEGETABLES PER DAY AMONG MASSACHUSETTS ADULTS, 2003**

	<b>CRUDE %</b>	<b>%</b>	<b>AGE-ADJUSTED 95% CI</b>
OVERALL	29.0	28.9	(27.5-30.2)
GENDER			
MALE	22.8	22.9	(21.0-24.9)
FEMALE	34.6	34.1	(32.3-35.9)
AGE GROUP			
18–24	28.7		(23.4-33.9)*
25–34	27.8		(24.7-30.9)*
35–44	23.7		(21.2-26.2)*
45–54	28.8		(25.9-31.8)*
55–64	30.3		(26.9-33.8)*
65–74	33.6		(29.4-37.9)*
75 AND OLDER	37.5		(32.9-42.2)*
RACE-ETHNICITY**			
WHITE	29.5	29.2	(27.7-30.7)
BLACK	27.1	27.7	(21.3-34.1)
HISPANIC	23.8	24.3	(19.2-29.3)
ASIAN	24.6	26.5	(15.0-38.0)
EDUCATION			
< HIGH SCHOOL	21.5	19.8	(15.2-24.4)
HIGH SCHOOL	24.5	23.8	(21.2-26.3)
COLLEGE 1–3 YRS	30.4	29.8	(27.1-32.5)
COLLEGE 4+ YRS	32.7	33.3	(30.9-35.7)
HOUSEHOLD INCOME			
<\$25,000	27.0	25.3	(22.3-28.3)
\$25–34,999	27.5	27.7	(23.2-32.2)
\$35–49,999	26.5	26.4	(22.8-29.9)
\$50–74,999	28.0	28.6	(25.2-32.0)
\$75,000+	30.9	33.1	(29.9-36.3)
REGION			
I–WESTERN	29.2	28.7	(25.2-32.2)
II–CENTRAL	26.4	25.9	(22.6-29.1)
III–NORTH EAST	29.3	29.4	(26.2-32.6)
IV–METRO WEST	31.2	31.3	(28.1-34.5)
V–SOUTH EAST	28.3	27.6	(24.6-30.6)
VI–BOSTON	28.6	29.3	(25.9-32.7)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 3.8: Cholesterol Awareness

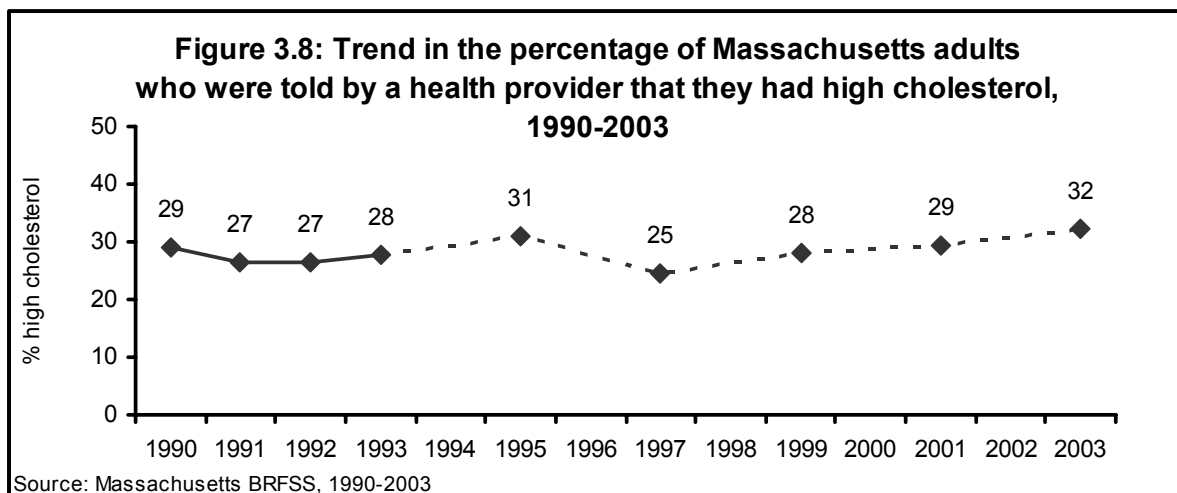
All respondents were asked when they last had their cholesterol checked. Those who had their cholesterol checked were also asked if they had ever been told by a doctor, nurse, or other health professional that their cholesterol was high. Reported here is the percentage of adults who had their cholesterol checked in the past five years, and the percentage of those who had been told that they had high cholesterol.

### CHOLESTEROL CHECKED IN PAST 5 YEARS (Table 3.8)

- Overall, 82% of Massachusetts adults reported that they had their cholesterol checked in the past 5 years.
- Women (84%) were more likely than men (80%) to report that they had their cholesterol checked within the past 5 years.
- The percentage of adults who had their cholesterol checked in the past 5 years increased with increasing age until age 75 years, and then decreased slightly.
- White, non-Hispanic adults (84%) were more likely to report that they had their cholesterol checked within the past 5 years than Black, non-Hispanic (75%), Hispanic (69%), or Asian (72%) adults.
- The percentage of adults who had had their cholesterol checked within the past 5 years increased with increasing education and income.
- Adults living in the Western (76%) and Boston (77%) regions of the state were less likely to report that they had their blood cholesterol checked in the past 5 years than adults living in any other region of the state.

### HIGH CHOLESTEROL (Table 3.8)

- Thirty two percent of adults who had their cholesterol checked were told by a doctor, nurse, or other health professional that their cholesterol was high.
- Men (35%) were more likely to report having high cholesterol than women (31%).
- The percentage of adults reporting that they had been told that they had high cholesterol increased with increasing age.
- White, non-Hispanic adults (34%) were more likely to report that they had high cholesterol than Black, non-Hispanic (21%), Hispanic (23%) or Asian (24%) adults.
- The number of adults reporting that they had ever been told that they had high cholesterol decreased with increasing education and income.



Note: Dotted line signifies year in which question was not asked.

**TABLE 3.8 – CHOLESTEROL AWARENESS AMONG MASSACHUSETTS ADULTS, 2003**

	CHOLESTEROL CHECKED IN PAST 5 YEARS			HIGH CHOLESTEROL***		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	81.8	80.9 (79.7-82.1)		32.4	29.6 (28.3-31.0)	
GENDER						
MALE	79.6	79.3 (77.4-81.1)		34.6	32.1 (30.0-34.2)	
FEMALE	83.7	82.5 (81.0-84.0)		30.6	27.2 (25.6-28.9)	
AGE GROUP						
18–24	52.5	(46.7-58.2)*		9.0	(5.3-12.7)*	
25–34	69.1	(65.9-72.3)*		13.4	(10.7-16.1)*	
35–44	82.2	(80.0-84.5)*		26.7	(23.8-29.6)*	
45–54	89.6	(87.6-91.5)*		33.1	(29.9-36.3)*	
55–64	94.4	(92.7-96.1)*		46.6	(42.8-50.4)*	
65–74	95.9	(94.3-97.4)*		50.6	(45.9-55.2)*	
75 AND OLDER	93.3	(90.6-96.1)*		50.1	(45.2-55.0)*	
RACE-ETHNICITY**						
WHITE	83.5	81.6 (80.2-82.9)		33.9	29.9 (28.5-31.4)	
BLACK	75.0	79.5 (74.6-84.3)		20.7	22.8 (16.7-28.9)	
HISPANIC	69.3	75.2 (70.7-79.7)		23.2	27.6 (21.9-33.2)	
ASIAN	71.7	75.5 (65.5-85.4)		24.3	30.0 (20.9-39.1)	
EDUCATION						
< HIGH SCHOOL	77.0	76.3 (71.9-80.7)		39.9	36.4 (31.1-41.7)	
HIGH SCHOOL	78.0	76.6 (74.1-79.1)		37.7	32.2 (29.3-35.1)	
COLLEGE 1–3 YRS	79.8	80.0 (77.8-82.3)		31.8	29.6 (27.0-32.2)	
COLLEGE 4+ YRS	86.1	85.1 (83.1-87.1)		28.6	27.9 (25.8-30.1)	
HOUSEHOLD INCOME						
<\$25,000	74.9	74.1 (71.2-77.1)		38.0	33.6 (30.1-37.2)	
\$25–34,999	79.6	78.9 (74.9-83.0)		38.8	34.4 (29.6-39.1)	
\$35–49,999	78.9	78.3 (75.0-81.7)		32.5	31.2 (27.3-35.2)	
\$50–74,999	81.9	81.2 (78.4-84.0)		29.0	26.8 (23.7-30.0)	
\$75,000+	87.6	85.8 (83.2-88.4)		27.8	26.1 (23.4-28.8)	
REGION						
I–WESTERN	76.4	75.5 (72.1-78.8)		30.0	26.0 (22.9-29.0)	
II–CENTRAL	80.2	78.4 (75.2-81.5)		35.8	32.3 (28.7-36.0)	
III–NORTH EAST	84.1	82.9 (80.4-85.5)		32.9	29.6 (26.7-32.6)	
IV–METRO WEST	83.4	82.1 (79.3-84.9)		30.7	27.3 (24.7-30.0)	
V–SOUTH EAST	85.2	83.0 (80.5-85.6)		34.6	30.7 (27.6-33.9)	
VI–BOSTON	77.2	80.8 (77.9-83.7)		30.1	32.3 (28.7-36.0)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

\*\*\*Analysis conducted among those who reported having their cholesterol checked.

### Section 3.9: Hypertension Awareness

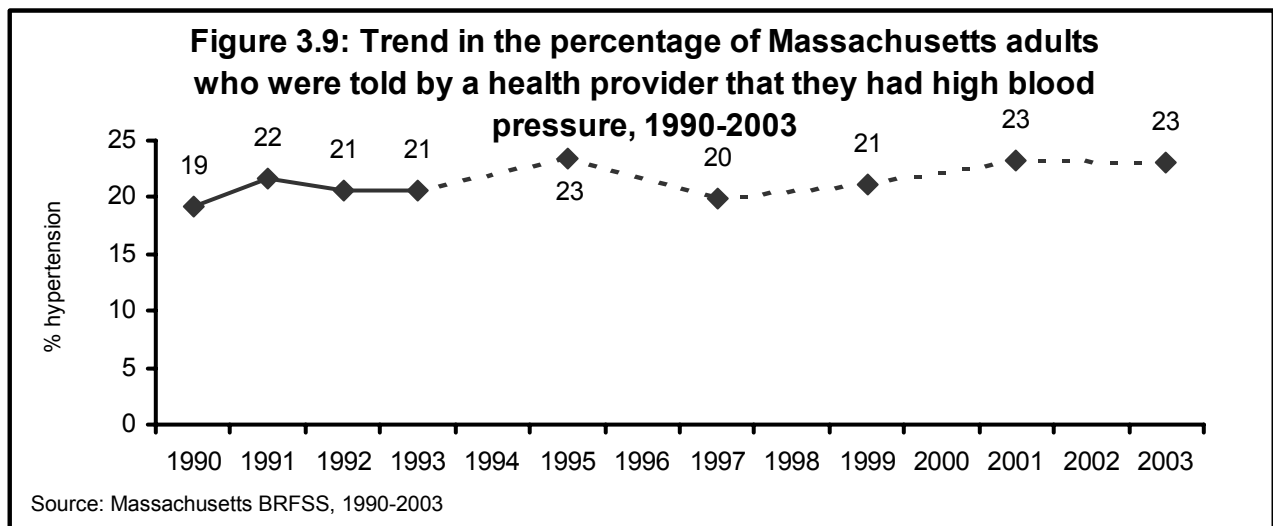
All respondents were asked if they had ever been told by a doctor, nurse, or other health professional that they had high blood pressure. Women who reported that they had high blood pressure only during pregnancy were excluded from the analysis. Individuals with high blood pressure were asked if they were currently taking medication for their high blood pressure. Presented here is the percentage of respondents who had ever been told they had high blood pressure, and the percentage with high blood pressure who took medication for their high blood pressure.

#### HIGH BLOOD PRESSURE (Table 3.9)

- Twenty three percent of Massachusetts adults reported that they had been told by a doctor, nurse, or other health professional that they had high blood pressure.
- Similar percentages of men and women (23%) reported that they had been told they had high blood pressure.
- The percentage of adults with high blood pressure increased with increasing age.
- Black, non-Hispanic adults (28%) were more likely to report high blood pressure than White, non-Hispanic (24%), Hispanic (18%), or Asian (1%) adults.
- The percentage of adults reporting high blood pressure decreased with increasing education and income.
- The percentage of adults reporting that they had been told that they had high blood pressure has shown an overall increase since 1990 (Figure 3.9).

#### TAKE MEDICINE FOR HIGH BLOOD PRESSURE (Table 3.9)

- Overall, 78% of those with high blood pressure reported taking medication for that condition.
- Women (80%) were more likely than men (74%) to report taking medication for their high blood pressure.
- The percentage of adults who took medication for their high blood pressure increased with increasing age, with those age 75 years and older (91%) being almost seven times as likely as those ages 18-24 years (13%) to report taking medication for high blood pressure.
- White, non-Hispanic adults (79%) were more likely to report taking medication for their high blood pressure than Black, non-Hispanic (69%), Hispanic (66%) or Asian (39%) adults.



Note: Dotted line signifies year in which question was not asked.

**TABLE 3.9 – HYPERTENSION AWARENESS AMONG MASSACHUSETTS ADULTS, 2003**

	HIGH BLOOD PRESSURE			TAKE MEDICINE FOR HIGH BLOOD PRESSURE***	
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	CRUDE 95% CI
OVERALL	23.1	22.4	(21.4-23.5)	77.5	(75.0-80.1)
GENDER					
MALE	23.1	23.5	(21.8-25.2)	74.3	(70.4-78.1)
FEMALE	23.2	21.4	(20.0-22.7)	80.4	(77.0-83.9)
AGE GROUP					
18–24	6.0		( 3.3-8.7)*	13.4	( 4.5-33.5)
25–34	6.8		( 5.0-8.5)*	26.4	(13.9-38.9)
35–44	11.0		( 9.0-12.9)*	51.7	(42.2-61.3)
45–54	21.6		(18.9-24.2)*	75.2	(69.5-80.1)
55–64	39.7		(36.1-43.4)*	83.7	(79.3-88.1)
65–74	49.5		(45.0-54.0)*	92.3	(89.0-95.6)
75 AND OLDER	59.2		(54.6-63.9)*	91.2	(87.2-95.2)
RACE-ETHNICITY**					
WHITE	24.1	22.1	(21.0-23.3)	78.8	(76.2-81.5)
BLACK	28.4	36.1	(30.7-41.4)	68.5	(56.7-80.2)
HISPANIC	17.9	26.3	(21.2-31.3)	65.8	(52.4-79.3)
ASIAN	1.4	3.5	(0.9-12.5)	38.9	( 7.6-83.1)
EDUCATION					
< HIGH SCHOOL	35.6	34.0	(29.4-38.6)	79.3	(72.2-86.5)
HIGH SCHOOL	28.2	25.2	(22.9-27.5)	82.4	(78.2-86.6)
COLLEGE 1–3 YRS	21.9	22.4	(20.2-24.6)	77.0	(71.6-82.3)
COLLEGE 4+ YRS	18.2	19.2	(17.4-20.9)	72.5	(67.8-77.2)
HOUSEHOLD INCOME					
<\$25,000	31.3	27.5	(24.8-30.2)	82.1	(77.9-86.3)
\$25–34,999	28.7	26.5	(22.7-30.3)	79.7	(72.4-87.1)
\$35–49,999	22.4	22.6	(19.5-25.7)	75.3	(68.2-82.5)
\$50–74,999	17.9	19.5	(16.8-22.2)	78.4	(71.8-84.9)
\$75,000+	16.9	18.9	(16.3-21.4)	66.9	(60.2-73.6)
REGION					
I–WESTERN	22.6	21.1	(18.6-23.6)	79.8	(73.1-86.4)
II–CENTRAL	23.5	23.4	(20.3-26.5)	76.6	(69.5-83.7)
III–NORTH EAST	22.3	21.6	(19.2-24.0)	79.1	(73.6-84.5)
IV–METRO WEST	21.3	20.8	(18.4-23.2)	75.4	(68.9-81.9)
V–SOUTH EAST	28.3	25.1	(22.5-27.7)	76.7	(71.5-81.8)
VI–BOSTON	19.2	23.8	(20.9-26.7)	79.5	(73.4-85.6)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

\*\*\*Among respondents who reported being told by a doctor that they had high blood pressure.

## Section 3.10: Flu Shot and Pneumonia Vaccine

All respondents were asked if they had an influenza vaccine or “flu shot” within the past 12 months. In addition, all respondents were asked if they had ever received a pneumonia vaccine. Presented here is the percentage of adults receiving a flu shot in the past year for adults ages 50-64 years and ages 65 years and older, and the percentage of adults reporting that they had ever had a pneumonia vaccination for those ages 65 years and older.

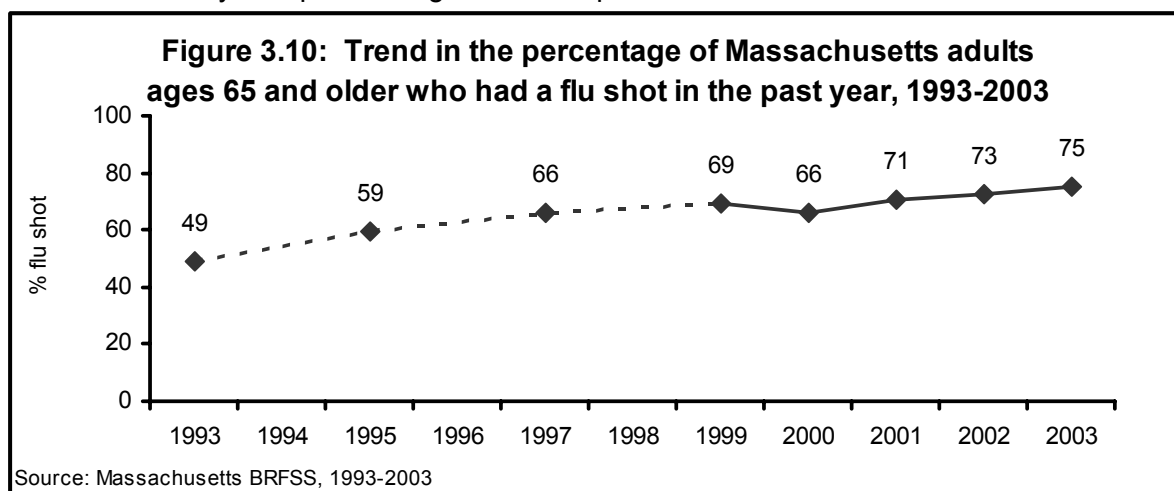
HP2010 goals for pneumonia and influenza vaccine focus on older adults, given that older adults are at greater risk for death or illness caused by influenza or pneumococcal disease.

### FLU SHOT IN PAST YEAR, AGES 50 AND OLDER (Table 3.10)

- Thirty eight percent of Massachusetts adults ages 50-64 years reported that they received a flu shot in the past year.
- Seventy five percent of adults ages 65 years and older reported that they received a flu shot in the past year.
- There was little difference in the percentage of White, non-Hispanic (75%) and Hispanic (76%) adults ages 65 years and older reporting that they had a flu shot in the past year.
- The percentage of adults ages 50-64 years who had had a flu shot in the past year increased with increasing education and income.
- Since 1993, the percentage of adults ages 65 years and older who have had a flu shot in the past year has increased (Figure 3.10).

### EVER HAD PNEUMONIA VACCINE, AGES 65 AND OLDER (Table 3.10)

- Sixty nine percent of Massachusetts adults ages 65 years and older reported that they had ever received a pneumonia vaccine.
- Women (71%) were more likely than men (67%) ages 65 years and older to report that they had ever received a pneumonia vaccine.
- The number of adults ages 65 years and older reporting that they had ever had a pneumonia vaccine decreased with increasing income.
- Adults with less than a high school education (64%) were the least likely to report ever having had a pneumonia vaccine, while those with a high school education (75%) were the most likely to report having received a pneumonia vaccine.



Note: Dotted line signifies year in which question was not asked.

**TABLE 3.10 – FLU SHOT AND PNEUMONIA VACCINE AMONG MASSACHUSETTS ADULTS, 2003**

	FLU SHOT IN PAST YEAR				EVER HAD PNEUMONIA VACCINE	
	AGES 50-64		AGES 65+		AGES 65+	
	CRUDE%	95%CI	CRUDE%	95% CI	CRUDE%	95%CI
OVERALL	38.2	(35.4-41.1)	74.9	(72.0-77.8)	69.4	(66.3-72.6)
GENDER						
MALE	34.0	(29.8-38.2)	75.7	(70.8-80.5)	67.1	(61.8-72.4)
FEMALE	42.2	(38.4-46.1)	74.5	(70.9-78.0)	70.9	(67.1-74.7)
AGE GROUP						
50-64	38.2	(35.4-41.1)				
65-74			72.2	(68.0-76.4)	63.7	(59.2-68.2)
75 AND OLDER			77.3	(73.4-81.3)	74.5	(70.2-78.7)
RACE-ETHNICITY*						
WHITE	38.9	(35.9-41.9)	75.0	(72.0-78.0)	69.7	(66.5-73.0)
BLACK	47.7	(30.9-64.5)	†	--	†	--
HISPANIC	22.1	(11.0-33.2)	75.8	(62.7-88.9)	†	--
ASIAN	†	--	†	--	†	--
EDUCATION						
< HIGH SCHOOL	30.3	(20.7-40.0)	69.2	(61.0-77.4)	63.8	(54.9-72.6)
HIGH SCHOOL	34.3	(28.4-40.3)	76.5	(72.0-81.1)	74.6	(69.7-79.5)
COLLEGE 1-3 YRS	38.2	(32.5-44.0)	74.2	(68.3-80.1)	67.2	(60.5-73.9)
COLLEGE 4+ YRS	41.4	(37.1-45.7)	76.1	(70.4-81.8)	67.4	(61.3-73.4)
HOUSEHOLD INCOME						
<\$25,000	30.6	(23.8-37.4)	74.9	(70.2-79.6)	74.2	(69.2-79.1)
\$25-34,999	31.8	(21.7-42.0)	75.6	(68.4-82.7)	73.2	(65.2-81.3)
\$35-49,999	31.8	(24.8-38.9)	81.2	(71.2-91.1)	70.7	(60.1-81.3)
\$50-74,999	37.3	(30.5-44.1)	71.0	(61.4-80.6)	65.7	(55.5-75.9)
\$75,000+	42.2	(37.2-47.3)	69.5	(58.9-80.0)	52.5	(41.6-63.4)
REGION						
I-WESTERN	38.7	(31.2-46.2)	75.8	(68.1-83.5)	75.9	(68.4-83.4)
II-CENTRAL	32.7	(25.3-40.1)	73.0	(64.5-81.5)	75.1	(66.6-83.7)
III-NORTH EAST	34.1	(27.5-40.8)	73.9	(67.1-80.7)	68.0	(60.6-75.4)
IV-METRO WEST	44.0	(37.7-50.4)	77.9	(72.0-83.7)	70.8	(64.1-77.5)
V-SOUTH EAST	35.8	(29.6-41.9)	73.8	(67.7-79.8)	65.2	(58.6-71.9)
VI-BOSTON	45.0	(37.1-52.9)	74.2	(66.0-82.5)	59.2	(49.3-69.1)

\* White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

### **Section 3.11: Sunburn**

All respondents were asked “Have you had a sunburn within the past 12 months?” This included anytime that even a small part of the skin was red for more than 12 hours.

#### **SUNBURN** (Table 3.11)

- Overall, 36% of Massachusetts adults reported that they had a sunburn in the past 12 months.
- Men (41%) were more likely than women (31%) to have had sunburn in the past 12 months.
- The percentage of adults reporting that they had sunburn in the past 12 months decreased with increasing age.
- White, non-Hispanic adults (40%) were more likely than Black, non-Hispanic (6%), Hispanic (13%) or Asian (15%) adults to have been sunburned in the past 12 months.
- The percentage of adults reporting that they had been sunburned in the past 12 months increased with increasing education and income.



**TABLE 3.11 – SUNBURN AMONG MASSACHUSETTS ADULTS, 2003**

	CRUDE	AGE-ADJUSTED	
	%	%	95% CI
OVERALL	35.7	36.6	(35.2-37.9)
GENDER			
MALE	40.7	40.4	(38.2-42.5)
FEMALE	31.3	33.1	(31.4-34.9)
AGE GROUP			
18–24	55.0		(49.5-60.5)*
25–34	46.9		(43.6-50.3)*
35–44	44.8		(41.9-47.8)*
45–54	38.5		(35.3-41.7)*
55–64	22.3		(19.2-25.5)*
65–74	15.2		(11.9-18.4)*
75 AND OLDER	4.1		( 2.3-5.9)*
RACE-ETHNICITY**			
WHITE	39.9	42.3	(40.8-43.8)
BLACK	6.2	5.4	( 3.1-7.7)
HISPANIC	13.4	11.8	( 8.1-15.5)
ASIAN	14.9	18.9	( 8.2-29.5)
EDUCATION			
< HIGH SCHOOL	16.2	17.4	(13.2-21.6)
HIGH SCHOOL	30.5	32.8	(30.0-35.5)
COLLEGE 1–3 YRS	39.9	39.5	(36.7-42.2)
COLLEGE 4+ YRS	40.5	41.0	(38.7-43.2)
HOUSEHOLD INCOME			
<\$25,000	24.2	25.2	(22.2-28.2)
\$25–34,999	26.0	26.9	(22.8-31.1)
\$35–49,999	36.3	36.6	(33.0-40.1)
\$50–74,999	45.0	43.8	(40.2-47.3)
\$75,000+	46.1	44.9	(42.0-47.8)
REGION			
I–WESTERN	36.5	37.3	(33.7-40.8)
II–CENTRAL	37.5	37.9	(34.3-41.5)
III–NORTH EAST	35.9	36.8	(33.7-39.9)
IV–METRO WEST	35.4	36.6	(33.5-39.8)
V–SOUTH EAST	38.0	41.2	(38.0-44.4)
VI–BOSTON	28.9	26.8	(23.6-29.9)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.



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## SECTION 4: CHRONIC HEALTH CONDITIONS

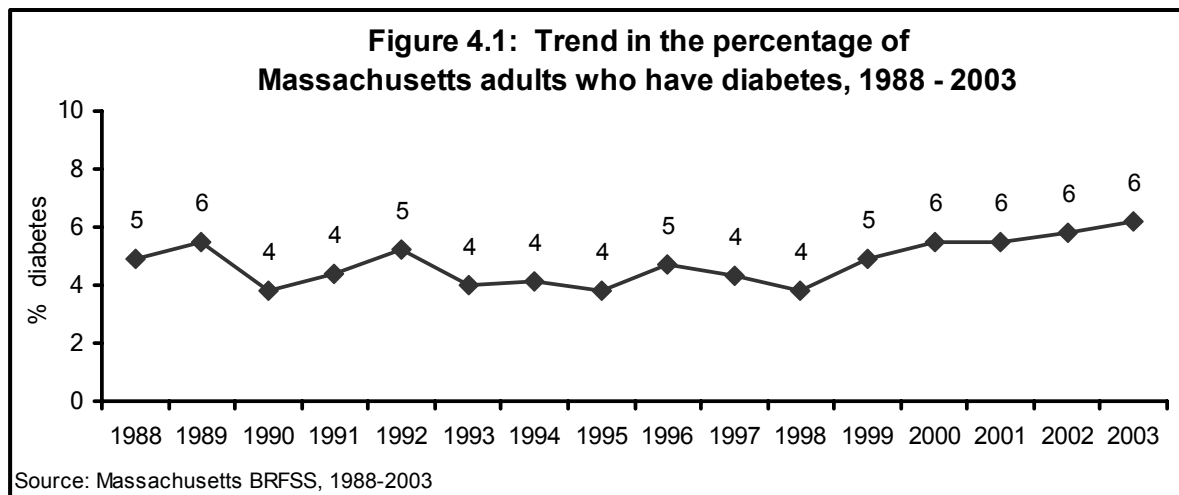
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## Section 4.1: Diabetes

All respondents were asked if they had ever been told by a doctor that they had diabetes. Women who had reported that they had diabetes only during pregnancy (gestational diabetes) were excluded from this analysis. Presented here is the number of respondents who reported that they had ever been told by a doctor that they had diabetes.

### DIABETES (Table 4.1)

- Overall, 6% of Massachusetts adults reported that they had been told by a doctor that they had diabetes.
- Men (7%) were slightly more likely than women (6%) to report that they had been told by a doctor that they had diabetes.
- The percentage of adults with diabetes increased with increasing age until age 74 years, then decreased slightly.
- Hispanic adults (9%) were more likely than White, non-Hispanic (6%), Black, non-Hispanic (7%), and Asian (3%) adults to report having diabetes.
- The percentage of adults with diabetes decreased with increasing education, those with less than a high school education (14%) were almost four times more likely than those with four or more years of college (4%) to report that they had diabetes.



**TABLE 4.1 – DIABETES AMONG MASSACHUSETTS ADULTS, 2003**

	CRUDE %	AGE-ADJUSTED % 95% CI
OVERALL	6.2	5.9 ( 5.3-6.5)
GENDER		
MALE	6.8	6.9 ( 5.9-8.0)
FEMALE	5.6	5.1 ( 4.4-5.9)
AGE GROUP		
18–24	0.9	( 0.0-1.9)*
25–34	1.0	( 0.2-1.7)*
35–44	3.1	( 2.1-4.1)*
45–54	5.2	( 3.8-6.6)*
55–64	10.7	( 8.4-13.0)*
65–74	16.9	(13.5-20.3)*
75 AND OLDER	14.8	(11.4-18.1)*
RACE-ETHNICITY**		
WHITE	6.0	5.4 ( 4.8-6.0)
BLACK	7.2	10.0 ( 6.2-13.8)
HISPANIC	8.7	12.8 ( 8.7-17.0)
ASIAN	2.8	3.5 ( 1.0-11.5)
EDUCATION		
< HIGH SCHOOL	13.9	12.2 ( 8.9-15.4)
HIGH SCHOOL	7.0	6.1 ( 4.9-7.4)
COLLEGE 1–3 YRS	6.7	6.9 ( 5.6-8.3)
COLLEGE 4+ YRS	3.7	3.9 ( 3.1-4.7)
HOUSEHOLD INCOME		
<\$25,000	10.6	9.8 ( 8.0-11.7)
\$25–34,999	5.2	4.2 ( 2.7-5.6)
\$35–49,999	7.3	7.4 ( 5.3-9.4)
\$50–74,999	5.2	5.7 ( 4.0-7.5)
\$75,000+	3.3	3.6 ( 2.3-5.0)
REGION		
I–WESTERN	6.1	5.6 ( 4.2-7.1)
II–CENTRAL	6.3	6.2 ( 4.4-8.1)
III–NORTH EAST	6.4	6.1 ( 4.6-7.5)
IV–METRO WEST	4.9	4.7 ( 3.3-6.0)
V–SOUTH EAST	7.9	6.9 ( 5.5-8.3)
VI–BOSTON	5.0	5.9 ( 4.2-7.5)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 4.2: Cardiovascular Diseases

All respondents ages 35 and older were asked (1) if they had been told by a doctor or nurse, or other health professional that they had had a heart attack or myocardial infarction, or (2) if they had been told they had angina or coronary heart disease. Respondents were classified as having heart disease if they had one of these conditions. Presented here is the percentage of respondents who reported that they had been told by a doctor, nurse, or other health professional that they had heart disease.

All respondents ages 35 and older were also asked if they had been told by a doctor, nurse, or other health professional that they had had a stroke. Presented here is the percentage of respondents who reported that they had been told by a doctor, nurse or other health professional that they had had a stroke.

### HEART DISEASE, AGES 35 AND OLDER (Table 4.2)

- Eight percent of Massachusetts adults ages 35 and older reported that they had ever been told by a doctor, nurse, or other health professional that they had heart disease.
- Men (9%) were more likely than women (7%) to report having been told by a doctor, nurse, or other health professional that they had heart disease.
- White, non-Hispanic adults (8%) were more likely to report having been told by a doctor, nurse, or other health professional that they had heart disease than Black, non-Hispanic (2%) or Hispanic (7%) adults.
- Adults with the least amount of education (19%) and income (19%) were the most likely to report having been told by a doctor, nurse, or other health professional that they had heart disease.

### STROKE, AGES 35 AND OLDER (Table 4.2)

- Three percent of Massachusetts adults ages 35 and older reported that they had ever been told by a doctor, nurse, or other health professional that they had had a stroke.
- The percentage of adults ages 35 and older reporting that they had ever had a stroke increased with increasing age, with adults ages 75 and older being almost 18 times as likely to have had a stroke as adults ages 35-44 years.
- Black, non-Hispanic and White, non-Hispanic adults (3%) were more likely than Hispanic adults (<1%) to have ever had a stroke.
- The percentage of adults ages 35 and older reporting that they had ever had a stroke was highest among those with the lowest income.

**TABLE 4.2 – CARDIOVASCULAR DISEASES AMONG MASSACHUSETTS ADULTS,  
AGES 35 AND OLDER, 2003**

	HEART DISEASE			STROKE		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	7.8	7.6 ( 6.4-8.8)		2.6	2.5 ( 1.8-3.3)	
GENDER						
MALE	9.2	9.5 ( 7.5-11.6)		2.2	2.3 ( 1.2-3.4)	
FEMALE	6.7	6.0 ( 4.6-7.5)		3.0	2.7 ( 1.7-3.8)	
AGE GROUP						
35–44	1.7	( 0.6-2.9)*		0.5	( 0.0-1.0)*	
45–54	3.5	( 1.7-5.3)*		1.0	( 0.2-1.8)*	
55–64	7.5	( 4.7-10.2)*		2.1	( 0.6-3.5)*	
65–74	14.0	( 9.8-18.2)*		5.7	( 2.3-9.2)*	
75 AND OLDER	25.6	(19.2-32.1)*		8.8	(4.9-12.7)*	
RACE-ETHNICITY**						
WHITE	8.1	7.6 ( 6.4-8.9)		2.7	2.5 ( 1.8-3.3)	
BLACK	2.2	5.7 ( 1.7-16.9)		3.2	2.2 ( 0.7-7.4)	
HISPANIC	6.7	6.6 ( 1.6-11.6)		0.3	1.1 ( 0.1-8.1)	
ASIAN	†	† --		†	† --	
EDUCATION						
< HIGH SCHOOL	19.1	16.4 ( 9.1-23.6)		3.4	2.2 ( 0.3-4.0)	
HIGH SCHOOL	10.5	8.6 ( 6.0-11.3)		3.5	2.8 ( 1.3-4.3)	
COLLEGE 1–3 YRS	7.9	8.6 ( 6.0-11.2)		2.5	2.7 ( 1.2-4.3)	
COLLEGE 4+ YRS	4.4	5.1 ( 3.4-6.8)		2.0	2.5 ( 1.2-3.8)	
HOUSEHOLD INCOME						
<\$25,000	18.9	15.6 (11.0-20.2)		5.2	4.5 ( 2.3-6.8)	
\$25–34,999	7.6	4.4 ( 2.2-6.6)		2.1	1.1 ( 0.4-3.5)	
\$35–49,999	10.8	9.8 ( 6.2-13.4)		3.3	3.1 ( 1.0-5.1)	
\$50–74,999	5.4	9.0 ( 4.5-13.5)		2.3	4.1 ( 0.8-7.5)	
\$75,000+	2.5	2.3 ( 1.1-3.5)		0.4	0.4 ( 0.1-1.1)	
REGION						
I–WESTERN	7.8	8.0 ( 4.9-11.2)		3.2	3.1 ( 1.2-5.0)	
II–CENTRAL	8.1	7.7 ( 4.6-10.8)		1.8	1.9 ( 0.2-3.6)	
III–NORTH EAST	7.7	7.5 ( 4.7-10.4)		1.9	1.9 ( 0.6-3.2)	
IV–METRO WEST	7.1	6.8 ( 4.3-9.4)		3.0	3.0 ( 1.1-4.9)	
V–SOUTH EAST	8.8	8.0 ( 5.4-10.5)		3.2	2.7 ( 1.3-4.1)	
VI–BOSTON	7.0	7.4 ( 4.1-10.7)		2.0	2.2 ( 0.4-3.9)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

## Section 4.3: Asthma

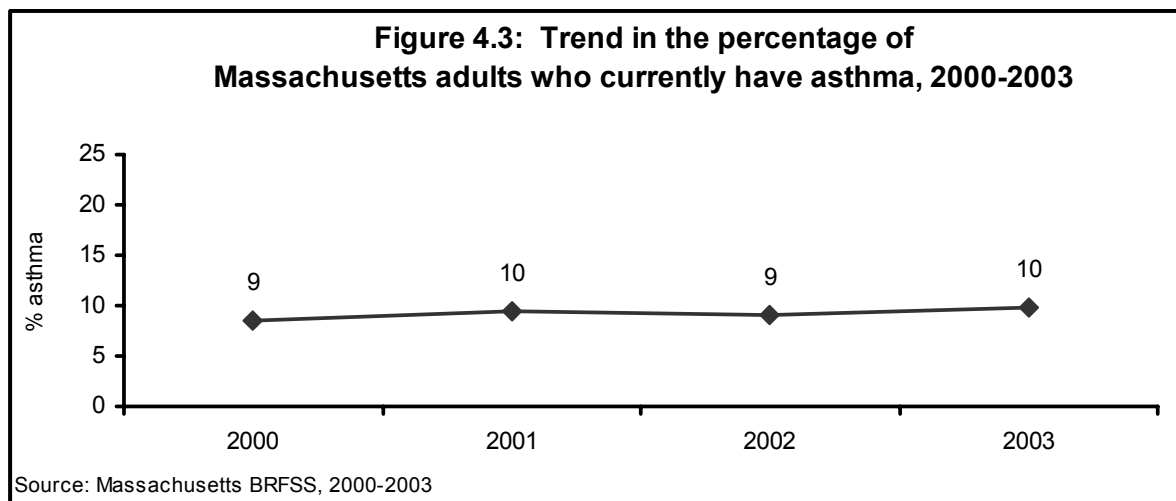
All respondents were asked if they had ever been told by a doctor, nurse, or other health care professional that they had asthma. Those who reported ever having asthma, were then asked if they currently have asthma. Reported here is the percentage of respondents who reported ever having asthma, and those who reported currently having asthma.

### EVER HAD ASTHMA (Table 4.3)

- Overall, 14% of Massachusetts adults reported that they had ever been told that they had asthma.
- Women (16%) were more likely to report having ever had asthma than men (13%).
- The percentage of adults who had been told they ever had asthma decreased with increasing age, with those ages 18-24 years being 2.5 times as likely as those ages 75 and older to report that they ever had asthma.
- Black, non-Hispanic, Hispanic (15%) and White, non-Hispanic (14%) adults were more likely than Asian (11%) adults to report ever having asthma.

### CURRENTLY HAVE ASTHMA (Table 4.3)

- Overall, 10% of Massachusetts adults reported that they currently have asthma.
- Women (12%) were more likely than men (8%) to report currently having asthma.
- The percentage of adults who currently have asthma was highest among those ages 18-24 years (13%).
- The trend in the percent of adults who currently have asthma has remained relatively stable since the year 2000 (Figure 4.3).





**TABLE 4.3 – ASTHMA AMONG MASSACHUSETTS ADULTS, 2003**

	EVER HAD ASTHMA			CURRENTLY HAVE ASTHMA		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	14.4	14.6 (13.5-15.6)		9.9	10.0 ( 9.1-10.9)	
GENDER						
MALE	13.0	13.0 (11.4-14.6)		7.9	8.0 ( 6.7-9.2)	
FEMALE	15.6	16.1 (14.6-17.5)		11.7	12.0 (10.8-13.2)	
AGE GROUP						
18–24	20.5	(16.0-24.9)*		12.9	( 9.3-16.5)*	
25–34	16.9	(14.4-19.5)*		10.8	( 8.8-12.7)*	
35–44	13.7	(11.6-15.8)*		9.5	( 7.6-11.4)*	
45–54	14.3	(12.1-16.6)*		10.5	( 8.5-12.5)*	
55–64	12.1	( 9.7-14.5)*		9.1	( 7.0-11.2)*	
65–74	13.8	(10.2-17.4)*		9.8	( 7.2-12.4)*	
75 AND OLDER	7.9	( 5.4-10.4)*		5.8	( 3.7-8.0)*	
RACE-ETHNICITY**						
WHITE	14.4	14.8 (13.6-16.1)		9.9	10.1 ( 9.1-11.1)	
BLACK	15.1	14.3 ( 9.5-19.1)		11.4	11.0 ( 6.7-15.3)	
HISPANIC	14.7	15.1 (11.5-18.8)		11.2	11.5 ( 8.1-14.8)	
ASIAN	11.2	10.1 ( 3.3-16.8)		4.3	6.0 ( 0.3-11.8)	
EDUCATION						
< HIGH SCHOOL	15.0	16.3 (12.6-20.1)		11.2	12.6 ( 9.1-16.0)	
HIGH SCHOOL	14.3	14.6 (12.4-16.7)		9.8	10.0 ( 8.2-11.8)	
COLLEGE 1–3 YRS	15.9	15.7 (13.4-17.9)		11.6	11.3 ( 9.3-13.4)	
COLLEGE 4+ YRS	13.4	13.4 (11.7-15.1)		8.8	8.8 ( 7.5-10.1)	
HOUSEHOLD INCOME						
<\$25,000	16.6	18.1 (15.4-20.8)		12.9	14.4 (11.9-16.9)	
\$25–34,999	14.2	14.1 (10.6-17.7)		9.5	9.3 ( 6.6-12.0)	
\$35–49,999	14.3	14.3 (11.2-17.5)		9.5	9.5 ( 7.2-11.9)	
\$50–74,999	15.7	15.9 (13.1-18.7)		10.1	10.2 ( 7.8-12.6)	
\$75,000+	13.3	13.7 (11.5-16.0)		8.6	8.8 ( 7.0-10.7)	
REGION						
I–WESTERN	14.6	14.3 (11.5-17.1)		10.9	10.6 ( 8.2-13.0)	
II–CENTRAL	15.7	15.9 (12.8-19.0)		11.1	11.3 ( 8.6-13.9)	
III–NORTH EAST	15.7	16.0 (13.5-18.5)		11.5	11.7 ( 9.5-13.9)	
IV–METRO WEST	13.6	14.1 (11.7-16.5)		7.4	7.5 ( 5.9-9.2)	
V–SOUTH EAST	12.6	12.9 (10.6-15.2)		9.6	9.9 ( 7.9-12.0)	
VI–BOSTON	15.3	15.1 (12.4-17.7)		10.3	10.3 ( 8.1-12.6)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 4.4: Arthritis

All respondents were asked if they had ever been told by a doctor or other health professional that they have some form of arthritis. Presented here is the percentage of adults ages 45 years and older who reported that they had been told by a doctor or other health professional that they had arthritis. (Note: The definition of arthritis has changed since this question was last asked in 2001, this accounts for the difference in numbers from previous years. In 2003 arthritis included rheumatoid arthritis, gout, lupus, or fibromyalgia).

### DOCTOR DIAGNOSED ARTHRITIS, AGES 45 YEARS AND OLDER (Table 4.4)

- Overall, 41% of Massachusetts adults ages 45 and older reported that they had been told by a doctor or other health professional that they had arthritis.
- Women (45%) were more likely than men (36%) to report having ever been told that they had arthritis.
- Arthritis increased with increasing age.
- Black, non-Hispanic (44%) and Hispanic (45%) adults were more likely to report having arthritis than White, non-Hispanic (41%) or Asian (12%) adults.
- Arthritis decreased with increasing education and income, with 57% of adults with less than a high school education reporting that they had ever been told that they had arthritis, and 34% of adults with four or more years of college reporting that they had ever been told they have arthritis.

**TABLE 4.4 – DOCTOR DIAGNOSED ARTHRITIS AMONG MASSACHUSETTS ADULTS,  
AGES 45 YEARS AND OLDER 2003**

	<b>CRUDE %</b>	<b>AGE-ADJUSTED %      95% CI</b>
OVERALL	40.9	40.4 (38.5-42.3)
GENDER		
MALE	35.5	36.2 (33.3-39.1)
FEMALE	45.3	43.7 (41.3-46.1)
AGE GROUP		
45–54	26.1	(23.2-29.0)*
55–64	41.7	(38.0-45.4)*
65–74	54.3	(49.7-58.8)*
75 AND OLDER	55.3	(50.5-60.0)*
RACE-ETHNICITY**		
WHITE	40.9	40.3 (38.3-42.2)
BLACK	43.7	46.1 (37.1-55.0)
HISPANIC	44.6	46.7 (37.1-56.3)
ASIAN	11.6	18.9 (5.8-31.9)
EDUCATION		
< HIGH SCHOOL	56.5	56.4 (49.3-63.4)
HIGH SCHOOL	45.2	42.0 (38.3-45.6)
COLLEGE 1–3 YRS	41.9	41.9 (38.0-45.8)
COLLEGE 4+ YRS	33.8	35.6 (32.6-38.6)
HOUSEHOLD INCOME		
<\$25,000	58.1	54.0 (49.3-58.8)
\$25–34,999	41.9	38.0 (32.2-43.8)
\$35–49,999	36.4	35.7 (30.4-41.0)
\$50–74,999	37.9	39.7 (34.5-45.0)
\$75,000+	29.1	34.8 (29.8-39.7)
REGION		
I–WESTERN	37.5	37.1 (32.6-41.7)
II–CENTRAL	43.8	43.3 (37.9-48.7)
III–NORTH EAST	40.5	41.0 (36.6-45.4)
IV–METRO WEST	38.8	38.7 (34.8-42.7)
V–SOUTH EAST	42.4	41.5 (37.5-45.6)
VI–BOSTON	44.2	44.2 (38.8-49.6)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 4.5: Disability

All respondents were asked about disabilities and activity limitations. Respondents were classified as having a disability or limitation if, for at least one year, (1) they had an impairment that limited activities or caused cognitive difficulties, (2) they used special equipment or required help from others to get around, or (3) reported a disability of any kind. Presented here is the percentage of respondents who fit this definition of having a disability.

Respondents who reported having a disability were also asked if their disability or limitation required them to need help with routine needs or personal care.

### HAVE DISABILITY (Table 4.5)

- Twenty two percent of Massachusetts adults reported having a disability or limitation.
- Similar percentages of men (21%) and women (22%) reported that they had a disability.
- After age 25, the percentage of adults reporting a disability increased with increasing age.
- White, non-Hispanic (22%), Black, non-Hispanic (20%), and Hispanic (24%) adults were more likely to report having a disability than Asian (4%) adults.
- The percentage of adults reporting a disability decreased with increasing education and income.

### DISABILITY/NEED HELP WITH ACTIVITIES (Table 4.5)

- Six percent of Massachusetts adults had a disability or limitation that caused them to require help with daily activities.
- Women (7%) were more likely than men (4%) to report that they had a disability that caused them to require help with daily activities.
- The percentage of adults who had a disability that caused them to require help with daily activities increased with increasing age.
- The percentage of adults who reported that they had a disability that caused them to require help with daily activities decreased with increasing education and income.

**TABLE 4.5 - DISABILITY AMONG MASSACHUSETTS ADULTS, 2003**

	HAVE DISABILITY			DISABILITY/NEED HELP WITH ACTIVITIES		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	21.6	21.7	(20.1-23.2)	5.6	5.6	( 4.7-6.5)
GENDER						
MALE	21.2	21.7	(19.3-24.0)	4.0	4.1	( 3.0-5.2)
FEMALE	22.0	21.7	(19.7-23.7)	6.9	6.8	( 5.5-8.1)
AGE GROUP						
18-24	19.3		(13.6-25.0)*	2.2		( 2.0 - 2.5)
25-34	12.3		( 9.7-15.0)*	2.6		( 1.2 - 4.0)
35-44	19.0		(15.9-22.1)*	4.8		( 3.0 - 6.5)
45-54	19.9		(16.6-23.2)*	6.1		( 4.0 - 8.2)
55-64	24.9		(20.9-28.9)*	7.3		( 4.8 - 9.7)
65-74	32.5		(27.1-37.9)*	7.2		( 4.2 -10.3)
75 AND OLDER	40.1		(33.6-46.6)*	13.8		( 9.5 -18.1)
RACE-ETHNICITY**						
WHITE	21.9	21.5	(19.8-23.2)	5.5	5.3	( 4.4-6.2)
BLACK	20.4	21.9	(15.0-28.9)	6.1	7.7	( 3.0-12.4)
HISPANIC	23.5	29.0	(21.8-36.2)	7.3	10.2	( 4.9-15.5)
ASIAN	3.5	2.8	( 0.9-8.5)	†	†	--
EDUCATION						
< HIGH SCHOOL	38.8	40.7	(34.3-47.1)	13.4	16.6	(11.0-22.1)
HIGH SCHOOL	23.8	22.3	(19.2-25.4)	6.8	6.5	( 4.7-8.2)
COLLEGE 1-3 YRS	21.5	22.0	(18.9-25.1)	5.2	5.3	( 3.5-7.1)
COLLEGE 4+ YRS	17.5	18.8	(16.3-21.2)	3.8	4.3	( 2.8-5.8)
HOUSEHOLD INCOME						
<\$25,000	37.5	39.9	(35.7-44.2)	12.5	14.0	(10.8-17.3)
\$25-34,999	22.7	24.6	(19.3-29.8)	6.6	6.7	( 3.7-9.8)
\$35-49,999	22.3	22.6	(18.1-27.2)	4.7	4.6	( 1.0-6.2)
\$50-74,999	17.4	18.0	(14.3-21.7)	3.5	3.8	( 1.9-5.7)
\$75,000+	13.0	13.9	(10.9-16.9)	2.1	2.3	( 0.7-3.8)
REGION						
I-WESTERN	24.2	23.9	(19.8-28.1)	6.0	6.0	( 4.1-8.0)
II-CENTRAL	22.1	22.7	(18.3-27.0)	9.8	9.7	( 6.6-12.7)
III-NORTH EAST	22.5	22.6	(19.0-26.3)	3.4	3.5	( 1.8-5.1)
IV-METRO WEST	19.2	19.1	(15.8-22.4)	4.6	4.6	( 1.0-6.2)
V-SOUTH EAST	21.9	20.7	(17.3-24.1)	5.6	5.1	( 3.1-7.1)
VI-BOSTON	21.0	24.1	(20.0-28.2)	5.4	7.4	( 4.8-10.0)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.



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## SECTION 5: CANCER SCREENING

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## Section 5.1: Colorectal Cancer Screening

Respondents ages 50 and older were asked if they had ever had a blood stool test using a home test kit to determine if their stool contained blood. Presented here is the percentage of those respondents who reported that they had a blood stool test using a home test kit in the past 2 years.

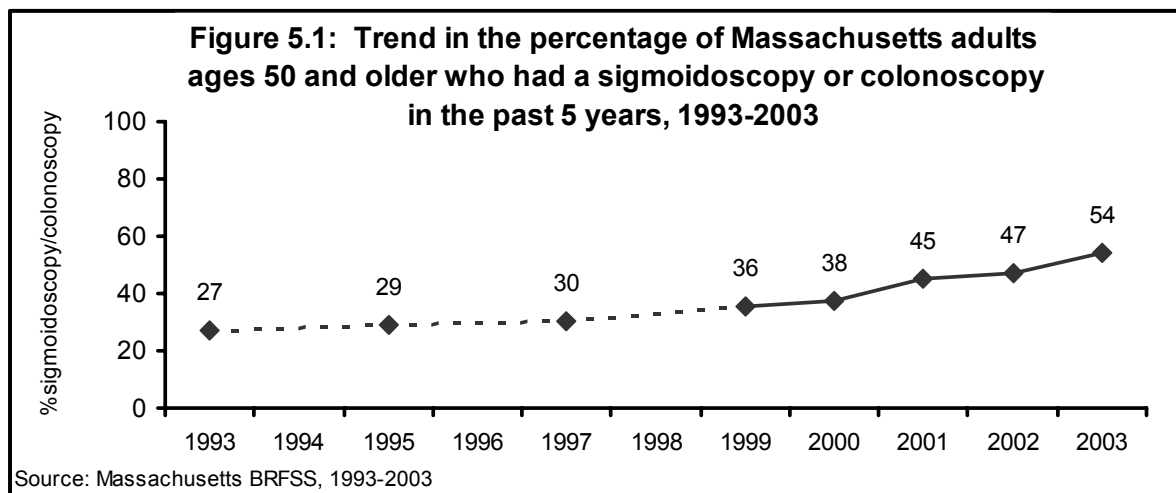
Respondents ages 50 and older were also asked if they had ever had a sigmoidoscopy or colonoscopy, exams in which a tube is inserted in the rectum to view the bowel for signs of cancer or other health problems. Presented here is the percentage of respondents who reported that they had a sigmoidoscopy, colonoscopy, or blood stool test.

### BLOOD STOOL TEST IN THE PAST TWO YEARS, AGES 50 YEARS AND OLDER (Table 5.1)

- Approximately 36% of Massachusetts adults ages 50 years and older reported that they had a blood stool test in the past two years.
- Reports of a blood stool test in the past two years were highest among adults ages 70-79 years (42%) and lowest among adults ages 50-59 years (27%).
- White, non-Hispanic (37%) and Black, non-Hispanic (36%) adults were more likely to report a blood stool test in the past two years than Hispanic adults (19%).
- Adults with an income above \$75,000 per year (33%) least likely to have a blood stool test in the past 2 years.

### SIGMOIDOSCOPY OR COLONOSCOPY IN THE PAST FIVE YEARS, AGES 50 YEARS AND OLDER (Table 5.1)

- Approximately 54% of Massachusetts adults ages 50 years and older reported that they had a sigmoidoscopy or colonoscopy in the past five years.
- Men (61%) were more likely than women (48%) to report a sigmoidoscopy or colonoscopy in the past five years.
- A higher percentage of White, non-Hispanic (55%) and Black, non-Hispanic (58%) adults than Hispanic (33%) or Asian (14%) adults reported a having a colonoscopy or sigmoidoscopy in the past five years.
- Since 1993, the trend in the percentage of adults ages 50 and over who had a sigmoidoscopy or colonoscopy in the past 5 years has increased. (Figure 5.1)



Note: Dotted line signifies year in which question was not asked.



**TABLE 5.1 – COLORECTAL CANCER SCREENING AMONG MASSACHUSETTS ADULTS,  
AGES 50 YEARS AND OLDER, 2003**

	BLOOD STOOL TEST IN THE PAST 2 YEARS			SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YEARS		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	36.4	36.1	(33.0-39.3)	53.9	53.6	(50.4-56.9)
GENDER						
MALE	35.5	36.1	(31.2-41.0)	60.5	61.7	(56.9-66.4)
FEMALE	37.1	36.3	(32.3-40.3)	48.4	48.2	(44.0-52.4)
AGE GROUP						
50-59	26.8		(20.5-33.2)*	40.5		(33.4-47.5)*
60-69	35.5		(30.1-41.0)*	54.7		(48.9-60.4)*
70-79	42.0		(35.1-48.8)*	66.2		(60.0-72.4)*
80 AND OLDER	40.6		(33.8-47.4)*	53.6		(46.7-60.6)*
RACE-ETHNICITY**						
WHITE	36.9	36.7	(33.4-40.0)	54.9	54.7	(51.3-58.0)
BLACK	36.3	41.9	(26.7-57.1)	58.0	56.4	(40.5-72.2)
HISPANIC	19.0	20.1	( 8.4-31.8)	33.1	31.6	(17.1-46.1)
ASIAN	†	†	--	13.5	27.9	( 5.0-50.8)
EDUCATION						
< HIGH SCHOOL	32.1	26.5	(18.1-34.9)	42.8	40.1	(29.0-51.2)
HIGH SCHOOL	37.1	37.8	(31.5-44.0)	54.0	53.8	(47.4-60.2)
COLLEGE 1-3 YRS	37.9	38.1	(31.8-44.5)	53.2	53.5	(46.9-60.0)
COLLEGE 4+ YRS	36.0	37.2	(31.9-42.4)	57.5	58.4	(53.3-63.6)
HOUSEHOLD INCOME						
<\$25,000	38.6	36.7	(29.6-43.8)	49.2	43.8	(37.1-50.5)
\$25-34,999	40.7	44.0	(33.1-54.9)	49.5	48.9	(37.8-59.9)
\$35-49,999	36.4	37.1	(27.6-46.5)	51.7	50.6	(41.1-60.0)
\$50-74,999	37.1	40.1	(31.4-48.7)	64.3	65.9	(57.6-74.2)
\$75,000+	32.7	36.2	(27.6-44.7)	55.9	62.3	(54.7-69.8)
REGION						
I-WESTERN	33.5	34.0	(26.6-41.4)	45.6	46.1	(38.0-54.2)
II-CENTRAL	43.9	43.4	(34.2-52.6)	53.4	53.2	(44.0-62.5)
III-NORTH EAST	36.2	35.9	(28.3-43.6)	50.4	50.3	(43.0-57.6)
IV-METRO WEST	35.9	35.9	(29.2-42.6)	59.6	59.3	(52.4-66.2)
V-SOUTH EAST	34.6	34.5	(28.0-41.1)	55.7	55.2	(48.3-62.0)
VI-BOSTON	37.9	37.3	(28.7-45.8)	58.6	57.4	(48.7-66.1)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

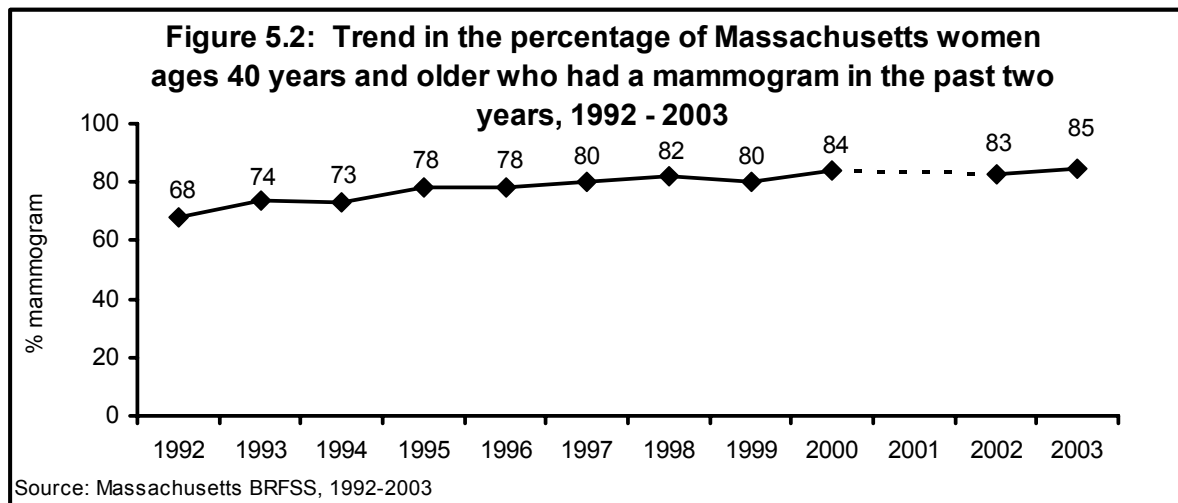
† Insufficient numbers.

## Section 5.2: Breast Cancer Screening

All female respondents were asked about breast cancer screening. Those women who reported that they had ever had a mammogram (an X-ray of each breast to look for cancer) were asked how long it had been since their last mammogram. The percentage of women ages 40 and older that had a mammogram in the past two years is presented.

### MAMMOGRAM IN THE PAST TWO YEARS, AGES 40 AND OLDER (Table 5.2)

- Among women ages 40 years and older, 85% reported having had a mammogram in the past two years.
- The percentage of women reporting a mammogram increased with increasing age until age 79 years and then decreased.
- Black, non-Hispanic women (90%) were more likely to have had a mammogram in the past two years than White, non-Hispanic (85%), Hispanic (84%) or Asian (87%) women.
- Reports of having had a mammogram in the past two years increased with both increasing education and income.
- The trend in the percentage of women ages 40 years and older who report having a mammogram in the past 2 years has increased since 1992 (Figure 5.2).



Note: Dotted line signifies year in which question was not asked.

**TABLE 5.2 – MAMMOGRAM IN PAST 2 YEARS AMONG MASSACHUSETTS WOMEN,  
AGES 40 YEARS AND OLDER, 2003**

	CRUDE	AGE-ADJUSTED
	%	% 95% CI
OVERALL	84.6	84.8 (82.9-86.8)
GENDER		
MALE		
FEMALE	84.6	84.8 (82.9-86.8)
AGE GROUP		
40-49	77.7	(72.4-83.1)*
50-59	88.5	(85.3-91.8)*
60-69	88.5	(84.6-92.3)*
70-79	89.6	(85.7-93.5)*
80 AND OLDER	77.1	(70.9-83.4)*
RACE-ETHNICITY**		
WHITE	84.5	84.7 (82.6-86.8)
BLACK	90.0	92.3 (85.6-99.0)
HISPANIC	84.4	81.4 (71.4-91.4)
ASIAN	87.4	86.3 (74.0-98.5)
EDUCATION		
< HIGH SCHOOL	79.4	77.0 (68.0-86.1)
HIGH SCHOOL	81.6	83.3 (79.3-87.3)
COLLEGE 1–3 YRS	86.3	86.0 (82.1-90.0)
COLLEGE 4+ YRS	87.5	87.2 (84.0-90.3)
HOUSEHOLD INCOME		
<\$25,000	77.0	74.5 (67.9-81.2)
\$25–34,999	82.3	80.9 (74.4-87.5)
\$35–49,999	86.7	86.8 (81.9-91.7)
\$50–74,999	88.1	88.6 (84.0-93.2)
\$75,000+	89.8	84.3 (79.0-89.7)
REGION		
I–WESTERN	83.6	83.8 (78.7-88.9)
II–CENTRAL	83.2	83.2 (77.3-89.1)
III–NORTH EAST	85.1	85.9 (81.5-90.3)
IV–METRO WEST	86.3	86.2 (82.1-90.3)
V–SOUTH EAST	83.9	84.7 (80.7-88.7)
VI–BOSTON	85.5	85.1 (79.7-90.4)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.



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## Section 6: Childhood Health

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## Section 6.1: Dental Sealant

Respondents who reported that they had a child between the ages of 6-17 in their household were asked if the child had ever received dental sealant on his or her permanent teeth. A dental sealant is a clear or white plastic-like material that is painted on a child's back teeth by a dentist or hygienist to prevent tooth decay. Presented here is the percentage of children who had dental sealant put on their permanent teeth.

### DENTAL SEALANTS, CHILDREN AGES 6-17 (Table 6.1)

- Overall, 59% of children had dental sealant on his or her permanent teeth.
- Children ages 10 and over were more likely to have had dental sealant on their teeth than children under age 10.
- The percentage of children with dental sealant on their teeth increased with increasing household income, with those children living in a household with an income over \$75,000 per year (68%) being almost twice as likely as those living in a household with an income less than \$25,000 per year (37%) to have dental sealants on their teeth.
- Children living in the Boston region (46%) were less likely to have dental sealant, than children living in other regions of the state

<b>TABLE 6.1 – DENTAL SEALANT, CHILDREN AGES 6-17 , 2003</b>		
	<b>CRUDE %</b>	<b>95% CI</b>
OVERALL	58.6	(54.7-62.5)
AGE GROUP		
6-9	37.2	(30.7-43.7)
10-14	68.5	(63.1-74.0)
15-17	73.1	(66.3-79.8)
HOUSEHOLD INCOME		
<\$25,000	36.7	(27.1-46.4)
\$25–34,999	45.5	(31.4-59.6)
\$35–49,999	57.6	(46.8-68.3)
\$50–74,999	64.6	(55.8-73.4)
\$75,000+	68.3	(62.4-74.2)
REGION		
I–WESTERN	53.6	(43.5-63.7)
II–CENTRAL	62.2	(52.2-72.3)
III–NORTH EAST	60.2	(51.3-69.1)
IV–METRO WEST	66.7	(58.4-74.9)
V–SOUTH EAST	55.0	(46.7-63.2)
VI–BOSTON	46.1	(33.2-58.9)

## Section 6.2: Health Care Access

Respondents who reported that they had children living in their household were asked questions about health insurance and healthcare for a randomly selected child in the household. Reported here are the percentages of children who did not have any type of health coverage including HMOs, Medicaid, MassHealth, or Children's Medical Security.

### HEALTH CARE ACCESS, CHILDREN AGES 0-17 (Table 6.2)

- Overall, 2% of children did not have any type of healthcare coverage.
- Children living in a household with an income of less than \$25,000 (4%) were more likely to have no health care coverage than children from families with a higher income.

<b>TABLE 6.2 – HEALTH CARE ACCESS, CHILDREN AGES 0-17, 2003</b>		
	<b>CRUDE %</b>	<b>95% CI</b>
OVERALL	2.0	(1.2-2.8)
AGE GROUP		
0-4	0.7	(0.02-1.3)
5-9	2.2	(0.7-3.7)
10-14	2.5	(0.6-4.3)
15-17	3.1	(0.8-5.6)
HOUSEHOLD INCOME		
<\$25,000	4.1	(1.7-6.6)
\$25–34,999	2.7	(0-6.5)
\$35–49,999	1.5	(0-3.1)
\$50–74,999	3.0	(0-5.8)
\$75,000+	0.4	(0-1.0)
REGION		
I–WESTERN	1.2	(0-2.6)
II–CENTRAL	4.3	(0.8-7.8)
III–NORTH EAST	2.4	(0.6-4.3)
IV–METRO WEST	0.8	(0-1.8)
V–SOUTH EAST	1.8	(0.3-3.4)
VI–BOSTON	1.9	(0-4.3)

## Section 6.3: Asthma

Respondents who reported that they had children living in their household (ages 17 or younger) were asked if these children had ever been diagnosed with asthma and if these children currently have asthma. The percentage of children who currently had asthma is presented in the table below.

### EVER HAD ASTHMA

- 13% of all children were reported to have ever been diagnosed with asthma (data not shown).

### CURRENT ASTHMA, CHILDREN AGES 0-17 (Table 6.3)

- Overall, 9% of children were reported to have current asthma.
- The percentage of children who currently had asthma was lowest in children 0-4 years old (7%), and highest in children 15-17 years old (15%).
- Children living in a household with an income of less than \$25,000 per year ((18%) were twice as likely to have current asthma as children living in a household with an income of greater than \$75,000 per year (9%).
- Children living in the Boston region (13%), the Western and Central regions (12%) were more likely to have asthma than children in other regions of the state.

TABLE 6.3 – CURRENT ASTHMA, CHILDREN AGES 0-17, 2003		
	CRUDE %	95% CI
OVERALL	9.2	(7.1-11.3)
AGE GROUP		
0-4	7.2	(5.0-9.3)
5-9	11.1	(8.7-13.5)
10-14	11.9	(9.6-14.3)
15-17	15.3	(11.6-19.0)
HOUSEHOLD INCOME		
<\$25,000	18.1	(14.5-21.8)
\$25–34,999	9.8	(5.7-13.8)
\$35–49,999	9.6	(6.4-12.7)
\$50–74,999	8.1	(5.6-10.7)
\$75,000+	8.6	(6.8-10.3)
REGION		
I–WESTERN	12.0	(8.7-15.4)
II–CENTRAL	12.4	(9.1-15.6)
III–NORTH EAST	9.9	(7.2-12.7)
IV–METRO WEST	8.8	(6.1-11.6)
V–SOUTH EAST	11.0	(8.2-13.7)
VI–BOSTON	12.5	(8.4-16.6)



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## SECTION 7: OTHER TOPICS

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## Section 7.1: HIV Testing

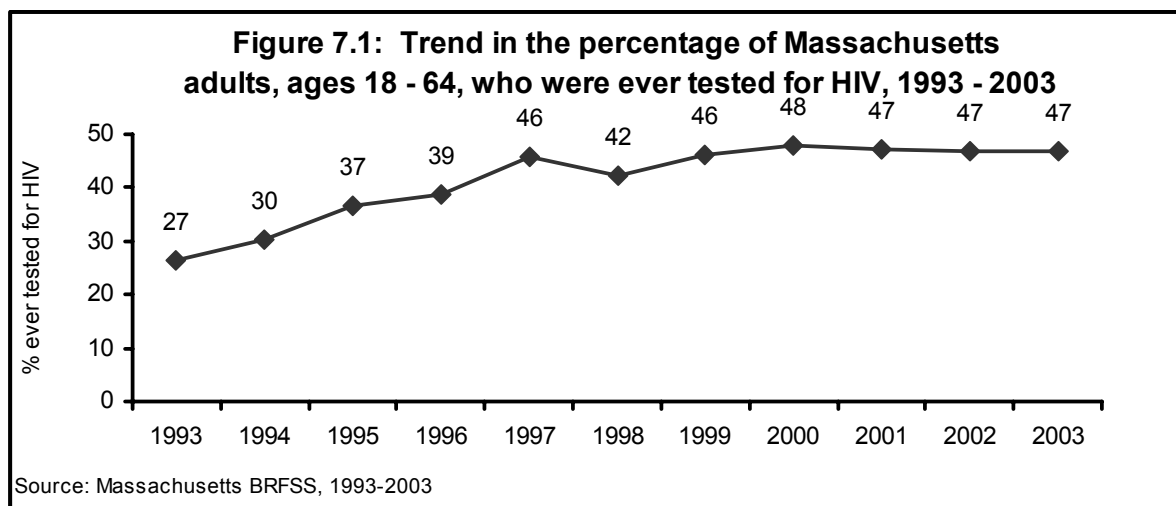
All respondents ages 18-64 were asked if they had ever been tested for HIV. Respondents were told not to include times that HIV testing had been done as part of a blood donation. Respondents who reported that they had ever been tested for HIV were asked the date of their most recent HIV test. Presented here is the percentage of respondents who had ever been tested for HIV, and the percentage of those who had been tested in the past year.

### EVER TESTED FOR HIV, AGES 18-64 YEARS (Table 7.1)

- Among adults ages 18-64 years, approximately 47% reported having ever been tested for HIV.
- Similar percentages of men and women (approximately 47%) reported having ever been tested for HIV.
- The highest percentage of adults reporting ever being tested for HIV was among adults ages 25-34 years (64%) and adults ages 35-44 years (57%).
- Black, non-Hispanic and Hispanic adults (58%) were more likely to report ever having been tested for HIV than White, non-Hispanic (45%) or Asian (42%) adults.
- Adults with a household income of less than \$25,000 were more likely to report having been tested for HIV than any other income group.
- Adults living in the Boston region (54%) were more likely to report ever having been tested for HIV than adults from any other region.
- The trend in the percentage of adults ages 18-64 who have ever been tested for HIV has increased over the past 10 years (Figure 7.1).

### TESTED FOR HIV IN PAST YEAR, AGES 18-64 YEARS (Table 7.1)

- Approximately 13% of Massachusetts adults ages 18-64 years, reported having been tested for HIV in the past year.
- Similar percentages of men (13%) and women (12%) reported having been tested for HIV in the past year.
- Hispanic adults (27%) were more likely than White, non-Hispanic (11%), Black, non-Hispanic (19%) or Asian (16%) adults to report having been tested for HIV in the past year.
- Reports of being tested for HIV in the past year decreased with increasing education and income.



**Table 7.1 – HIV TESTING AMONG MASSACHUSETTS ADULTS, AGES 18-64, 2003**

	EVER TESTED FOR HIV			TESTED FOR HIV IN THE PAST YEAR		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	46.7	47.1 (45.5-48.8)		12.7	12.8 (11.6-14.0)	
GENDER						
MALE	46.9	47.2 (44.7-49.7)		13.1	13.2 (11.4-15.0)	
FEMALE	46.6	47.1 (45.0-49.2)		12.3	12.5 (10.9-14.0)	
AGE GROUP						
18-24	40.8	(35.2-46.3)*		20.8	(16.1-25.4)*	
25-34	63.8	(60.5-67.2)*		19.4	(16.6-22.2)*	
35-44	56.6	(53.5-59.7)*		11.6	( 9.6-13.6)*	
45-54	37.6	(34.3-40.8)*		6.4	( 4.8-8.1)*	
55-64	25.3	(21.9-28.6)*		5.7	( 3.7-7.6)*	
RACE-ETHNICITY**						
WHITE	45.3	46.3 (44.5-48.1)		10.9	11.4 (10.1-12.6)	
BLACK	58.2	58.9 (52.5-65.4)		19.4	19.3 (13.8-24.9)	
HISPANIC	57.8	57.4 (51.3-63.6)		27.0	24.2 (18.9-29.5)	
ASIAN	41.7	31.1 (23.3-38.8)		15.7	11.1 ( 5.2-17.1)	
EDUCATION						
< HIGH SCHOOL	49.5	52.2 (45.7-58.7)		16.9	16.7 (11.8-21.6)	
HIGH SCHOOL	43.4	44.9 (41.7-48.2)		12.8	12.7 (10.3-15.2)	
COLLEGE 1-3 YRS	45.7	47.3 (44.2-50.5)		13.1	13.1 (10.8-15.4)	
COLLEGE 4+ YRS	48.8	47.7 (45.1-50.4)		11.7	12.3 (10.3-14.3)	
HOUSEHOLD INCOME						
<\$25,000	56.8	56.1 (52.1-60.2)		21.7	19.4 (16.2-22.6)	
\$25-34,999	53.2	52.5 (46.9-58.2)		16.4	15.5 (11.1-19.9)	
\$35-49,999	44.8	44.9 (40.5-49.3)		11.7	12.3 ( 9.2-15.4)	
\$50-74,999	43.0	43.4 (39.5-47.2)		10.2	10.6 ( 8.0-13.2)	
\$75,000+	45.4	45.0 (42.0-48.0)		9.2	10.1 ( 7.9-12.3)	
REGION						
I-WESTERN	45.0	46.8 (42.5-51.0)		11.3	11.8 ( 9.1-14.5)	
II-CENTRAL	49.5	48.6 (44.2-53.1)		11.5	11.7 ( 8.8-14.6)	
III-NORTH EAST	48.3	48.7 (45.0-52.3)		14.1	14.4 (11.5-17.3)	
IV-METRO WEST	46.2	46.1 (42.3-50.0)		12.3	12.5 ( 9.6-15.4)	
V-SOUTH EAST	40.8	42.6 (38.8-46.4)		9.5	10.1 ( 7.6-12.6)	
VI-BOSTON	54.2	53.7 (49.7-57.8)		19.8	18.2 (14.8-21.6)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 7.2: Illicit Drug Use

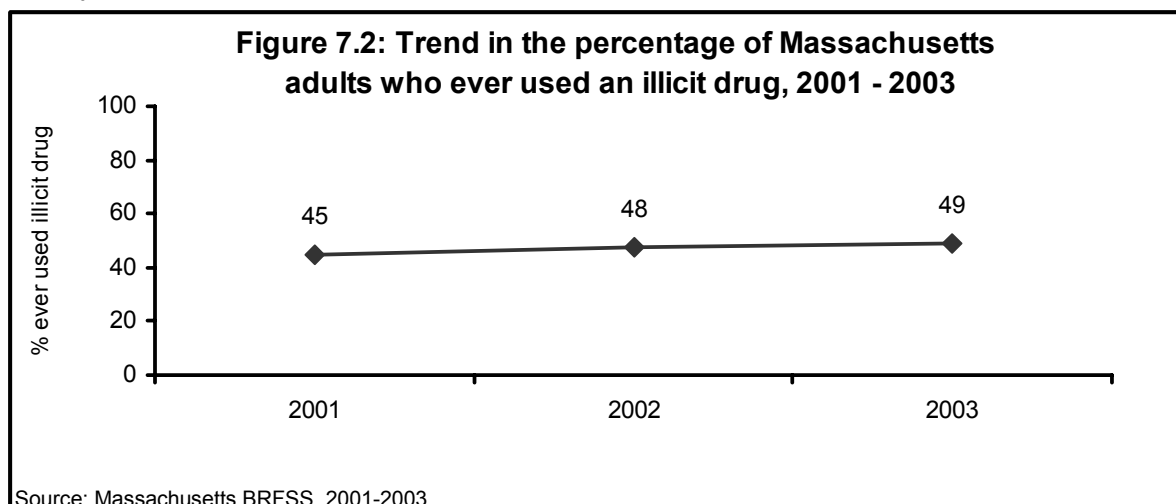
All respondents were asked if they had ever, even if only once, used marijuana, powder cocaine, crack cocaine, hallucinogens, Oxycontin, or sedatives or tranquilizers that were not prescribed to them. Respondents ages 18-35 years were also asked if they had ever used MDMA/Ecstasy. Respondents were also asked how long it had been since they had last used any of these drugs. Presented here is the percentage of adults who reported having ever used any of these illicit drugs and the percentage of adults who reported having used any of these illicit drugs within the past 30 days.

### EVER USED ILLICIT DRUGS (Table 7.2)

- Among Massachusetts adults, approximately 49% report having used an illicit drug at some time in their lifetime.
- A higher percentage of men (52%) than women (46%) reported having used an illicit drug at some time.
- The percentage of adults who reported having ever used an illicit drug was highest among adults ages 18-24 years (67%) and second highest among adults ages 35-44 years (65%).
- White, non-Hispanic adults (51%) were more likely than Black, non-Hispanic (42%), Hispanic (23%) or Asian (24%) adults to have ever used an illicit drug.
- Illicit drug use was highest among adults with a household income of \$75,000 or more per year (60%) and lowest among those with a household income of between \$25,000 and \$34,999 (37%).
- Since 2001, the percentage of adults who report that they ever used illicit drugs has increased (Figure 7.2).

### USED ILLICIT DRUGS IN THE PAST 30 DAYS (Table 7.2)

- Six percent of Massachusetts adults reported having used an illicit drug in the past 30 days.
- A higher percentage of men (9%) than women (3%) reported having used an illicit drug in the past 30 days.
- Illicit drug use was highest among adults ages 18-24 years (19%), followed by 7% of adults ages 45-54 years.
- White, non-Hispanic adults (6%) were more likely to report illicit drug use in the past 30 days than Black, non-Hispanic (5%) or Hispanic (3%) adults.



**TABLE 7.2 – ILLICIT DRUG USE AMONG MASSACHUSETTS ADULTS, 2003**

	EVER USED ILLICIT DRUGS			USED ILLICIT DRUGS IN THE PAST 30 DAYS		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	48.7	49.9 (47.2-52.6)		5.5	5.9 ( 4.5 - 7.3)	
GENDER						
MALE	52.0	51.7 (47.7-55.8)		8.6	8.9 ( 6.5-11.2)	
FEMALE	45.7	48.4 (44.9-51.9)		2.7	2.9 ( 1.8 - 4.1)	
AGE GROUP						
18–24	66.9	(56.3-77.5)*		18.8	(11.0-26.7)*	
25–34	51.9	(45.1-58.8)*		5.2	( 2.5 - 7.8)*	
35–44	65.2	(59.7-70.7)*		3.7	( 1.6 - 5.8)*	
45–54	64.7	(59.0-70.4)*		6.5	( 3.8 - 9.3)*	
55–64	37.4	(30.1-44.7)*		3.8	( 1.1 - 6.6)*	
65–74	11.4	( 6.2-16.5)*		0.5	( 0.1 – 2.4)*	
75 AND OLDER	5.5	( 1.7 - 9.3)*		0.5	( 0.1-3.5)*	
RACE-ETHNICITY**						
WHITE	51.4	54.1 (51.3-56.9)		5.8	6.4 ( 4.9 - 8.0)	
BLACK	42.1	41.4 (29.0-53.8)		4.8	4.0 ( 1.4-11.4)	
HISPANIC	22.9	23.2 (13.7-32.7)		3.3	3.5 ( 0.2 - 6.8)	
ASIAN	23.5	37.3 (17.3-57.4)		†	† --	
EDUCATION						
< HIGH SCHOOL	35.6	43.1 (35.5-50.7)		7.1	8.3 ( 2.7-13.8)	
HIGH SCHOOL	46.0	50.1 (44.9-55.3)		5.8	5.8 ( 3.1 - 8.4)	
COLLEGE 1–3 YRS	53.4	52.4 (47.3-57.5)		6.0	5.8 ( 3.4 - 8.2)	
COLLEGE 4+ YRS	50.1	50.4 (46.1-54.6)		4.7	5.7 ( 3.1 - 8.3)	
HOUSEHOLD INCOME						
<\$25,000	40.4	51.0 (45.1-57.0)		6.5	7.5 ( 4.0-10.9)	
\$25–34,999	37.0	42.1 (33.9-50.3)		5.0	5.5 ( 1.6 - 9.4)	
\$35–49,999	48.5	48.4 (41.7-55.1)		5.2	5.9 ( 2.2 - 9.6)	
\$50–74,999	57.5	54.0 (48.1-59.9)		6.3	6.5 ( 2.9-10.2)	
\$75,000+	59.6	54.5 (49.4-59.6)		5.7	6.1 ( 3.3 - 8.9)	
REGION						
I–WESTERN	48.5	50.9 (44.7-57.2)		6.0	6.1 ( 2.8 - 9.5)	
II–CENTRAL	49.7	49.7 (42.5-56.9)		4.7	6.0 ( 1.7-10.2)	
III–NORTH EAST	46.7	47.3 (40.9-53.6)		5.5	6.2 ( 3.2 - 9.1)	
IV–METRO WEST	46.2	47.7 (41.6-53.8)		5.5	5.9 ( 2.7 - 9.1)	
V–SOUTH EAST	50.0	52.5 (46.4-58.7)		4.5	4.7 ( 2.2 - 7.2)	
VI–BOSTON	53.8	53.2 (46.3-60.0)		7.5	7.0 ( 3.8-10.3)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

## Section 7.3: Unwanted Sexual Contact

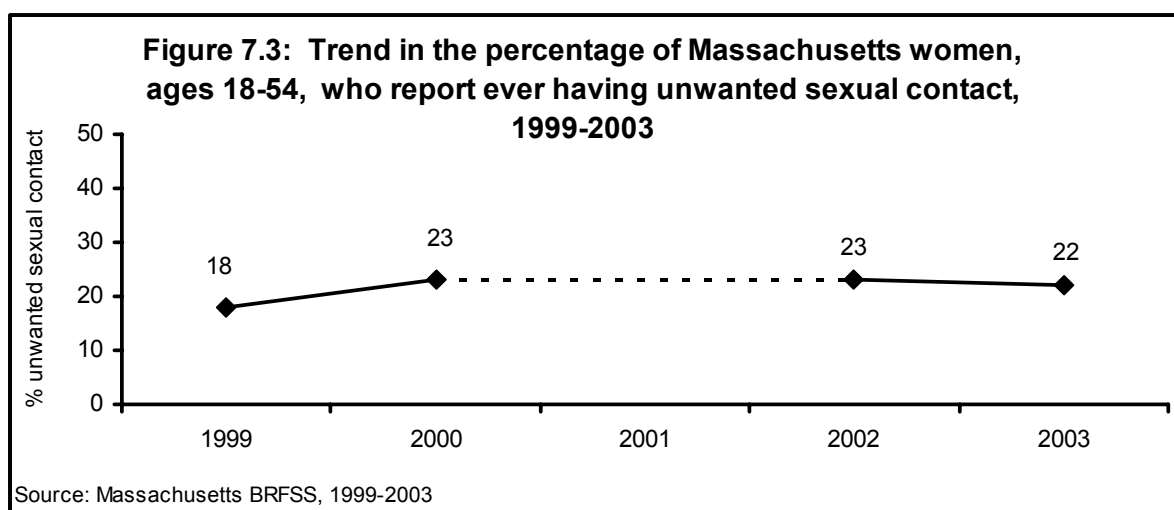
Respondents ages 18-59 years were asked if they had any unwanted sexual contact. Presented here are the percentages of women and men who reported that they had ever had any unwanted sexual contact. Unwanted sexual contact is presented separately for women and men.

### UNWANTED SEXUAL CONTACT, WOMEN AGES 18-59 YEARS (Table 7.3)

- Approximately 22% of women reported that they had ever had unwanted sexual contact.
- Reports of ever having unwanted sexual contact were highest among those ages 40-49 years (25%) and lowest among those ages 18-39 years (20%).
- A higher percentage of Black, non-Hispanic (25%), and White, non-Hispanic (23%) women, than Hispanic (17%) or Asian (2%) women reported having ever had unwanted sexual contact.
- A higher percentage of women with less than a high school education (33%) than women with either a high school education (20%), 1-3 years of college (25%) or 4 or more years of college (21%) reported having ever had unwanted sexual contact.
- The percentage of women reporting having ever had unwanted sexual contact was highest among women with a household income of less than \$35,000.
- The trend in the percentage of women reporting that they had ever had unwanted sexual contact has shown an overall increase since 1999 (Figure 7.3).

### UNWANTED SEXUAL CONTACT, MEN AGES 18-59 YEARS (Table 7.3)

- Approximately 7% of men ages 18-59 reported having ever had unwanted sexual contact
- Reports of having ever had unwanted sexual contact were highest among men ages 30-39 years (9%) and lowest among men ages 18-29 years (5%).
- Black, non-Hispanic men (15%) were more likely to report having ever had unwanted sexual contact than White, non-Hispanic (8%), Hispanic (2%) or Asian (2%) men.
- Thirteen percent of men with less than a high school education, as opposed to 6% of men with 4 or more years of college education, report having ever had unwanted sexual contact.
- Reports of having ever had unwanted sexual contact decreased with increasing income.



Note: Dotted line signifies year in which question was not asked.

**TABLE 7.3 – UNWANTED SEXUAL CONTACT AMONG MASSACHUSETTS ADULTS, AGES 18-59, 2003**

	UNWANTED SEXUAL CONTACT, WOMEN			UNWANTED SEXUAL CONTACT, MEN		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	22.2	22.2	(19.4-25.0)	7.3	7.4	( 5.3 - 9.4)
GENDER						
MALE				7.3	7.4	( 5.3 - 9.4)
FEMALE	22.2	22.2	(19.4-25.0)			
AGE GROUP						
18-29	19.5		( 9.9-29.1)*	5.1		( 0.2 - 9.9)*
30-39	20.2		(15.3-25.1)*	9.3		( 4.3-14.3)*
40-49	25.4		(20.4-30.4)*	8.2		( 4.4-12.0)*
50-59	23.7		(18.3-29.1)*	5.8		( 2.3 - 9.3)*
RACE-ETHNICITY**						
WHITE	22.8	22.6	(19.5-25.6)	7.8	7.9	( 5.6-10.3)
BLACK	25.1	20.3	(10.9-29.8)	14.7	14.1	( 1.5-26.7)
HISPANIC	17.0	13.6	( 6.1-21.1)	2.1	2.4	( 0.7 - 7.2)
ASIAN	2.1	2.1	( 0.3-13.4)	2.3	5.4	( 0.7-32.0)
EDUCATION						
< HIGH SCHOOL	32.6	31.3	(19.1-43.5)	13.0	12.4	( 2.8-22.1)
HIGH SCHOOL	19.9	20.5	(14.3-26.8)	6.6	7.1	( 2.7-11.6)
COLLEGE 1-3 YRS	25.4	25.6	(19.6-31.7)	8.5	8.5	( 4.3-12.7)
COLLEGE 4+ YRS	20.5	20.1	(16.7-23.6)	6.2	6.2	( 3.4 - 9.0)
HOUSEHOLD INCOME						
<\$25,000	29.8	31.2	(24.0-38.4)	14.3	14.5	( 7.2-21.8)
\$25-34,999	31.8	30.4	(21.0-39.8)	11.1	10.1	( 1.2-19.1)
\$35-49,999	21.3	20.3	(14.2-26.5)	9.5	9.7	( 3.4-16.0)
\$50-74,999	20.6	19.5	(14.0-25.0)	8.3	9.6	( 4.1-15.1)
\$75,000+	17.8	16.8	(12.4-21.3)	3.3	3.1	( 1.4 - 4.8)
REGION						
I-WESTERN	20.1	18.7	(11.6-25.8)	4.8	5.5	( 0.6-10.3)
II-CENTRAL	28.1	29.0	(20.3-37.8)	7.1	7.2	( 2.0-12.4)
III-NORTH EAST	19.6	19.5	(13.6-25.4)	5.1	5.1	( 1.1 - 9.0)
IV-METRO WEST	21.5	21.5	(14.9-28.2)	8.1	7.8	( 3.4-12.2)
V-SOUTH EAST	23.5	23.3	(17.4-29.2)	7.9	7.7	( 2.6-12.8)
VI-BOSTON	21.7	21.2	(14.7-27.7)	11.3	11.5	( 5.0-18.0)

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

## Section 7.4: Falls

Respondents ages 45 and older were asked if they had fallen in the past three months. A fall was defined as any time when a person unintentionally comes to rest on the ground or another lower level. Respondents who had fallen were asked if they were injured as a result of the fall. Presented here is the percentage of respondents who reported that they had fallen in the past 3 months, and, of those, the percentage who were injured as a result of the fall.

### FALLEN IN PAST THREE MONTHS, AGES 45 YEARS AND OLDER (Table 7.4)

- Approximately 14% of adults ages 45 years and older reported that they had fallen at least once in the past three months.
- Similar percentages of men and women reported falling in the past three months.
- A higher percentage of adults ages 45-54 years (16%) than all other age groups reported falling.
- White, non-Hispanic adults (15%) were more likely than Black, non-Hispanic (10%), Hispanic (11%) or Asian (3%) adults to report falling in the past three months.
- Adults in Boston (17%) were more likely than adults in all other regions to report a fall.

### FALLEN AND BEEN INJURED, AGES 45 YEARS AND OLDER (Table 7.4)

- Among adults ages 45 years and older who have fallen, 5% reported having been injured as a result of the fall.
- Similar percentages of men and women (approximately 5%) were hurt as a result of the fall.
- Reports of injuries were highest among White, non-Hispanic adults (5%) and lowest among Asian adults (2%), with Black, non-Hispanic and Hispanic adults (4%) reporting similar percentages of injury as a result of a fall.



**TABLE 7.4 – FALLS AMONG MASSACHUSETTS ADULTS, AGES 45 AND OLDER, 2003**

	FALLEN IN PAST THREE MONTHS			FALLEN AND BEEN INJURED***		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	14.1	14.2 (12.8-15.6)		5.1	5.2 ( 4.3 - 6.1)	
GENDER						
MALE	14.2	14.4 (12.2-16.6)		5.3	5.4 ( 3.9 - 7.0)	
FEMALE	14.0	14.3 (12.5-16.1)		5.0	5.1 ( 4.0 - 6.1)	
AGE GROUP						
45-54	16.4	(13.9-18.9)*		5.9	( 4.2 - 7.5)*	
55-64	12.4	(10.1-14.7)*		3.7	( 2.4 - 4.9)*	
65-74	12.7	( 9.5-15.8)*		5.5	( 3.4 - 7.7)*	
75+	13.6	(10.5-16.7)*		5.3	( 3.3 - 7.3)*	
RACE-ETHNICITY**						
WHITE	14.5	14.5 (13.1-16.0)		5.2	5.3 ( 4.3 - 6.3)	
BLACK	9.9	11.5 ( 5.7-17.4)		3.9	5.0 ( 1.3 - 8.7)	
HISPANIC	11.0	11.2 ( 5.7-16.8)		3.9	3.7 ( 1.6 - 5.8)	
ASIAN	3.4	6.4 ( 1.1-28.9)		2.4	5.7 ( 0.8-30.3)	
EDUCATION						
< HIGH SCHOOL	14.5	15.2 (10.5-20.0)		7.4	7.2 ( 4.1-10.4)	
HIGH SCHOOL	12.3	12.9 (10.1-15.7)		4.2	4.5 ( 2.5 - 6.5)	
COLLEGE 1–3 YRS	13.6	13.8 (10.9-16.7)		5.0	5.1 ( 3.3 - 6.9)	
COLLEGE 4+ YRS	15.5	15.2 (13.0-17.4)		5.3	5.3 ( 4.0 - 6.7)	
HOUSEHOLD INCOME						
<\$25,000	16.8	17.7 (14.2-21.1)		7.4	8.7 ( 5.9-11.4)	
\$25–34,999	12.0	13.7 ( 9.1-18.4)		3.0	3.0 ( 0.9 - 5.2)	
\$35–49,999	12.0	11.9 ( 8.6-15.3)		4.8	4.9 ( 2.7 - 7.2)	
\$50–74,999	16.5	17.1 (12.7-21.6)		6.5	6.8 ( 3.5-10.0)	
\$75,000+	12.8	13.0 ( 9.7-16.3)		2.9	3.1 ( 1.5 - 4.7)	
REGION						
I–WESTERN	15.4	15.5 (12.0-19.0)		5.9	6.0 ( 3.8 - 8.3)	
II–CENTRAL	12.9	13.3 ( 9.4-17.3)		5.6	5.9 ( 2.9 - 8.8)	
III–NORTH EAST	14.5	14.4 (11.0-17.8)		5.9	5.8 ( 3.3 - 8.3)	
IV–METRO WEST	15.1	15.0 (12.0-18.1)		3.3	3.3 ( 1.8 - 4.7)	
V–SOUTH EAST	11.8	12.0 ( 9.3-14.7)		4.9	5.1 ( 3.2 - 7.0)	
VI–BOSTON	16.7	17.3 (13.2-21.3)		6.8	7.0 ( 4.2 - 9.9)	

\* Confidence interval presented is for the crude (age specific) rate in the previous column.

\*\* White, Black and Asian race categories refer to non-Hispanic.

\*\*\*Among adults ages 45 and older, who have reported a fall in the last 3 months.



# APPENDIX

**SUMMARY OF 2003 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM  
RESULTS: MASSACHUSETTS ESTIMATES, COMPARISON TO NATIONAL  
ESTIMATES, AND HEALTHY PEOPLE (HP) 2010 OBJECTIVES**

VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	MA RANK§	HP 2010^ %
<b>OVERALL HEALTH MEASURES</b>					
FAIR OR POOR HEALTH	12.4	14.4	10.8-35.0	14 <sup>TH</sup>	X
15+ POOR MENTAL HEALTH DAYS	9.6	9.2	5.4-14.4	30 <sup>TH</sup>	X
15+ DAYS SAD, BLUE, OR DEPRESSED	7.7				X
15+ DAYS IN POOR PHYSICAL HEALTH	8.9	9.4	5.8-17.0	20 <sup>TH</sup>	X
<b>HEALTH CARE ACCESS AND UTILIZATION</b>					
NO HEALTH INSURANCE	9.5**				0.0
HAVE PERSONAL HEALTH CARE PROVIDER	87.0	81.2	65.2-89.4	6 <sup>TH</sup>	85.0
COULD NOT SEE DOCTOR DUE TO COST	7.1				X
<b>RISK FACTORS AND PREVENTIVE BEHAVIORS</b>					
CURRENT SMOKER	19.1	22.0	11.9-30.8	8 <sup>TH</sup>	12.0
HEAVY SMOKER	2.0				X
QUIT ATTEMPT AMONG CURRENT SMOKERS	55.7	52.6	45.6-61.3	12 <sup>TH</sup>	75.0
PLANNING TO QUIT SMOKING AMONG CURRENT SMOKERS	30.1				X
LIVE IN HOUSEHOLD WHERE SMOKING IS NOT ALLOWED	71.3				X
SUPPORT FOR BAN ON SMOKING IN RESTAURANTS	60.2				X
BINGE DRINKING	18.3				X
HEAVY DRINKING	7.6	5.8	2.2-8.6	48 <sup>TH</sup>	6.0
OVERWEIGHT (BASED ON HP 2010)	53.0	60.0	50.0-64.8	4 <sup>TH</sup>	X
OBESITY	16.8	22.8	16.0-28.4	3 <sup>RD</sup>	15.0
ANY LEISURE TIME PHYSICAL ACTIVITY	78.4	76.9	54.8-85.0	19 <sup>TH</sup>	70.0
REGULAR PHYSICAL ACTIVITY IN PAST MONTH	52.7	47.2	33.8-58.5	13 <sup>TH</sup>	X
5 OR MORE SERVINGS FRUIT AND VEGETABLES PER DAY	29.0	22.4	15.4-32.4	4 <sup>TH</sup>	X
CHOLESTEROL CHECKED IN PAST 5 YEARS	81.8	73.0	64.4-82.6	3 <sup>RD</sup>	80.0
HIGH CHOLESTEROL	32.4	33.2	27.0-38.2	20 <sup>TH</sup>	
HIGH BLOOD PRESSURE	23.1	24.9	18.8-33.6	11 <sup>TH</sup>	16.0
TAKE MEDICINE FOR HIGH BLOOD PRESSURE	77.5				X

¶ The US median percentage and range are based on data for all 50 states, the District of Columbia, and Puerto Rico.

§ Based on lowest risk or healthiest behavior, 1<sup>st</sup> = best, 52<sup>nd</sup> = worst.

^ HP2010 = Healthy People 2010 Objectives.

X No applicable objective.

\*\*This estimate of the uninsured is based on the insurance question asked by all states. Additional Massachusetts information has been left out of this calculation, so that Massachusetts can be compared with other states. Please see page 18.

VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	MA RANK§	HP 2010^ %
<b>RISK FACTORS AND PREVENTIVE BEHAVIORS, CONT.</b>					
FLU SHOT IN PAST YEAR (50-64)	38.2	41.0	19.9-52.8	41 <sup>ST</sup>	X
FLU SHOT IN PAST YEAR (65+)	74.9	70.1	40.2-80.3	7 <sup>TH</sup>	90.0
EVER HAD PNEUMONIA VACCINATION (65+)	69.4	64.6	32.9-73.0	6 <sup>TH</sup>	90.0
SUNBURN	35.7				X
<b>CHRONIC HEALTH CONDITIONS</b>					
DIABETES	6.2	7.0	4.8-11.0	13 <sup>TH</sup>	2.5
HEART DISEASE (35+)	7.8				X
STROKE (35+)	2.6				X
EVER HAD ASTHMA	14.4	11.8	10.0-20.6	49 <sup>TH</sup>	X
CURRENTLY HAVE ASTHMA	9.9	7.6	5.6-10.8	51 <sup>ST</sup>	X
DOCTOR DIAGNOSED ARTHRITIS (45+)	41.0				X
DISABILITY	21.6				X
DISABILITY/ NEED HELP WITH ACTIVITIES	5.6				X
<b>CANCER SCREENING</b>					
BLOOD STOOL TEST IN PAST 2 YRS (50 +)	36.4				50.0
SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YEARS (50+)	53.9				X
MAMMOGRAM IN PAST 2 YEARS (40+)	84.6				X
<b>OTHER TOPICS</b>					
EVER TESTED FOR HIV (18-64)	46.7	45.2	29.3-67.8	19 <sup>TH</sup>	X
TESTED FOR HIV IN PAST YEAR (18-64)	12.7	12.2	6.9-31.4	23 <sup>RD</sup>	X
EVER USED ILLICIT DRUGS	48.7				X
USED ILLICIT DRUGS IN PAST 30 DAYS	5.5				2.0
UNWANTED SEXUAL CONTACT (WOMEN 18-59)	22.2				X
UNWANTED SEXUAL CONTACT (MEN 18-59)	7.3				X
FALLEN IN PAST 3 MONTHS (45+)	14.1	12.9	8.5-17.3	34 <sup>TH</sup>	X
FALLEN AND BEEN INJURED (45+)	5.1	4.9	3.0-6.7	41 <sup>ST</sup>	X

¶ The US median percentage and range are based on data for all 50 states, the District of Columbia, and Puerto Rico.

§ Based on lowest risk or healthiest behavior, 1<sup>st</sup> = best, 52<sup>nd</sup> = worst.

^ HP2010 = Healthy People 2010 Objectives.

X No applicable objective.

## BRFSS METHODOLOGY

The Massachusetts BRFSS is a random–digit–dial (RDD) telephone survey of non–institutionalized Massachusetts adults residing in households with telephones. In 2003, the Massachusetts BRFSS was conducted by ORC Macro, Inc. The sampling of the survey population involved a

list–assisted, stratified RDD sampling frame, which assures that Massachusetts households with telephone numbers assigned after publication of the current directories, as well as households with deliberately unlisted numbers, are included in the sample in appropriate proportions. This methodology is designed to more efficiently and validly reach all telephone equipped households, in order to provide population based estimates of health conditions and behaviors. Telephone numbers were randomly selected, and multiple attempts were made to reach each household. To be eligible to participate in the survey, a household had to be occupied by at least one adult ages 18 or older.

Institutions, group quarters, and temporary residences lived in for less than one month per year were ineligible. In order to provide estimates of health at the local level, additional interviews were conducted among adults residing in the following major cities in the Commonwealth: Boston, Fall River, Lawrence, Lowell, New Bedford, Springfield and Worcester.

*The BRFSS is a random –digit–dial telephone survey of Massachusetts adults 18 and older.*

Once a household was contacted, one adult was randomly selected to complete the interview. No proxy respondents or substitutions were allowed in the event that the selected adult was unwilling or unable to complete the interview for any reason such as language

*In 2003, 7,580 adults participated in the BRFSS. All data are weighted, and provide population-based estimates of health among Massachusetts adults.*

barriers, disability, or lack of availability. In addition to English, the survey was conducted in Spanish and Portuguese. In 2003, 7,580 adults completed the survey; among those determined to be eligible, interviews were completed with 65% of the potential respondents. Data were weighted to reflect the probability of selection and differential participation by sex and age. All analyses presented in this report were conducted using SUDAAN

and SAS software and are considered estimates for the non-institutionalized adult population in Massachusetts. For each estimate section we include a 95% confidence interval in order to assess the variability of the data. Since the survey represents a random sample of the population, and not a complete census, 95% confidence intervals provide a range of values that most likely contain the true percent estimates for the population.

There are some limitations that should be considered when interpreting results from the BRFSS. Households that do not have a telephone do not have the opportunity to participate in the survey. Although only 0.5% of Massachusetts households lack a telephone, almost 4% of households living below poverty do not have a telephone based on 2000 Census supplemental survey.

In addition, although households were telephoned on repeated occasions, interviewers were not always able to reach the randomly selected adult in the household. In addition, some adults contacted did not agree to participate in the survey. To the degree that respondents who participated in the survey differed significantly from those not included in the survey, bias is present in the results. The weighting of the data partially takes into account this non–response.

All data collected by the BRFSS are based on self-report from the respondents. By its nature, self-reported data may be subject to error for several reasons. An individual may have difficulty remembering events that occurred a long time ago or the frequency of certain behaviors. Some respondents may over-report socially desirable behaviors, while underreporting behaviors they perceive to be less acceptable. Finally, because the BRFSS surveys a randomly selected sample of Massachusetts adults, these results may differ to some extent from another random sample simply due to chance. Despite the limitations described above, the BRFSS is the only survey of health risks and behaviors that represents the general Massachusetts population.

## TECHNICAL NOTES

**Age-adjustment:** Age-adjustment is a form of standardization. It is one tool used to remove the influence of an extraneous variable (a confounder) on the association between an exposure and outcome. For example, we may be interested in assessing whether adults

*Age-adjusted rates are used to compare an outcome, such as heart disease, between two groups of people of different ages, such as adults with and without diabetes.*

with diabetes are more likely than those without diabetes to have heart disease (outcome). However, we know that in our population, adults with diabetes are older than adults without diabetes and older adults are also more likely to have heart disease. Thus, we would like to remove the confounding effect of age, and to understand the underlying association between diabetes and heart disease, independent of age. In standardization, we stratify the data by the confounder, and calculate the proportion of people with the outcome within each stratified group, and we do this

separately for the exposed and the unexposed group. In the above example, we would stratify the data and calculate the proportion of individuals with heart disease within each level of age, for the diabetes and non-diabetes groups separately. Next, we would select a standard set of weights based on the frequency distribution of the confounder for that population. For example, we could calculate the frequency distribution of age for the total population. Then we apply this standard set of weights to the stratified-specific proportions for both the exposed and the unexposed group, and then compute the weighted average proportion for the exposed and unexposed groups. In essence, standardization breaks the link between the confounder and exposure, and allows us to ask if the exposed group and unexposed group had the same level of the confounder, what would the association with the outcome be. In the above example, this translates into what is the effect of diabetes on heart disease, if people with and without diabetes had the same age distribution.

In the above example, we standardized by age. However, standardization can be used to remove confounding by any extraneous variable such as gender, race, income, health status, etc. Standardization is one of the most intuitive approaches to removing confounding from data. Other commonly used tools include regression modeling and Mantel-Haenszel techniques.

**Confidence Interval:** The BRFSS surveys a random sample of the Massachusetts adult population and generalizes the results to estimate the true prevalence of disease or behaviors of the entire population. Two successive surveys of the same population may not yield the same estimate of a health behavior, simply due to the random selection process. For example, if we conduct two identical surveys of smoking prevalence at the same time, we may have two different estimates of smoking prevalence, even though the true underlying proportion of smokers in the population is unchanged.

The percent estimate usually provides a good approximation of the underlying truth, although there are a range of values that may be consistent with the data. This range is called a confidence interval. A 95% confidence interval can be considered to be a range of values that has a 95% chance of including the true proportion, given that the data were not biased in any way. The confidence interval describes the precision of an observed estimate of the underlying proportion, with a wider interval indicating less certainty about this estimate. The main factor affecting the width of the confidence interval is the number of respondents.

*A 95% confidence interval can be considered a range of values that has a 95% chance of including the true proportion.*



**Healthy People 2010 Objectives:** *The Healthy People 2010: National Health Promotion and Disease Prevention Objectives* are a national agenda that aim to significantly improve the health of Americans in the decade preceding the year 2010. Developed through an extensive governmental, professional, and public national process, Healthy People 2010

*Healthy People 2010 seeks to: increase quality and years of healthy life, and to reduce health disparities*

defined two broad national goals: to increase quality and years of healthy life and to eliminate health disparities. These goals were supported by 476 specific objectives that set priorities for public health during the first decade of the 2000's. The objectives were organized into 28 priority areas such as tobacco, overweight, and diabetes. For each objective, a numeric national target for the year 2010 was set. For each health status indicator in this report that has a corresponding Healthy People 2010 Objective, the year 2010 target is shown in the summary table at the end of the document (see pages 87-88).

**Median:** The median is the middle observation for a set of observations (i.e. the value that divides the frequency distribution into halves). It is also equal to the 50th percentile. For example, the US median represents the point at which half of the states have a higher estimate than the median and half have a lower estimate.

**Massachusetts Rank:** The Massachusetts rank is an ordering that shows where Massachusetts stands in relation to all of the other states. The lower the ranking (1 being the lowest), the better the state's standing with regards to the particular variable of interest.

## KEY LINKS

**Health Survey Program:** The Health Survey Program is part of the Center for Health Information, Statistics, Research and Evaluation at the Massachusetts Department of Public Health. Additional information about the program including other state publications can be found on our website located at <http://www.state.ma.us/dph/bhsre/cdsp/brfss/brfss.htm>.

**MassCHIP:** Data on selected variables from the Massachusetts BRFSS are available through the Massachusetts Community Health Information Profile (MassCHIP), an Internet-accessible information service available from the Massachusetts Department of Public Health. Information about how to register as a MassCHIP user is available at: <http://masschip.state.ma.us/>.

**National BRFSS data:** There is a national BRFSS website, located on the Centers for Disease Control and Prevention website, which provides information about the BRFSS, includes listings of publications and questionnaires, provides national data on selected variables, and includes links to relevant websites. The national BRFSS website is located at: <http://www.cdc.gov/brfss/>. A downloadable document that describes all aspects of the BRFSS and survey methodology is located at <http://www.cdc.gov/nccdphp/brfss/pdf/userguide.pdf>.

**Healthy People 2010 website:** The Healthy People Objectives has been coordinated by the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Information on the health prevention goals, priority areas, measuring progress in the health indicators and other pertinent information can be found on the Healthy People 2010 homepage at: <http://www.health.gov/healthypeople/>.